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A
COMPARATIVE GRAMMAR
OF
THE KOREAN LANGUAGE
AND
THE DRAVIDIAN DIALECTS
OF
INDIA

BY

HOMER B. HULBERT, A.M., F.R.G.S.

THE
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Preface.

The following pages are only a brief sketch of the whole subject and are intended to call attention to the question of the dispersion of the Turanian family of people. They form one link, only, in the cumulative agreement which proves that Korea, and Japan as well, were peopled from the south, at least in part. As one basis of work we have taken Caldwell's Comparative Grammar of the Dravidian Languages and from the Korean side we have depended upon personal investigation. The study of philology has, as yet, been largely confined to those languages from which were evolved the speech of Europe. The time must come when special work will be done along the line of the pre-Aryan languages which have survived and which today find so many exponents in Asia and the islands of the Pacific. This present volume is a very small and very humble contribution to this great work but if it should prove to be a proper deduction and should help in any way to establish a working theory of the dispersion of the Turanian people its object would be fully accomplished.

H. B. H.

A
COMPARATIVE GRAMMAR
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CHAPTER I.

The Phonetic System.

The Korean alphabet is of comparatively recent invention, dating only from the beginning of the fifteenth century. It was built upon a purely phonetic theory and was made entire at one time; so that it is free from the inconsistencies which result from the gradual evolution of an alphabet or the adaptation of the alphabet of one people to the speech of another. This is perhaps the most perfect phonetic system that has been called upon to stand the test of time and of actual use. Only one of its vowels is used for more than one sound, and these are so closely allied that they hardly form an exception. Of its consonants only one is used to represent two sounds, and those are the sounds of *l* and *r*, which in all the Turanian languages are practically interchangeable.

But while the Korean alphabet is a very perfect medium it will give us little help in such a comparative study as that which we contemplate. It will be necessary to write all words, whether Korean or Dravidian, in English characters, using such diacritical marks as are necessary to secure a fair degree of accuracy. In our romanization of Korean and Dravidian sounds we must adopt a

uniform system, and the first law to which we shall adhere is that all vowels have their continental or Italian sounds unless otherwise indicated.

The long vowels will be written *â, ô, û, î, ê*, while the same vowels when short in quantity will be written *a, o, u, i, e*. These vowels are common both to Korean and Dravidian speech; but in each there are a few other vowel sounds. The Korean has what is well described as the "unrounded" *o*. It is sounded much like the *or* of the word *work*. It is very difficult to find a good equivalent for this in any European language, but it comes perhaps as near to the German *ö* as anything, and we shall so transliterate it; but with this reservation, that it is not exactly the German umlaut. Another sound in Korean is that of the short *o* in *dog*, but differing from it in that the sound often approximates to the short *û* in *dug*. There is also the "unrounded" *u* which sounds like the *e* of "the" when pronounced rapidly as in common speech. This we indicate by the diphthong *eu*, for though the sound is not that of the French *eu* it approximates it closely enough for comparative purposes. We therefore adopt it with the reservation that it be not confounded with the French diphthong but that it be sounded like the "unrounded" *u*. And finally the Korean has the flat *a* as in *hat*, which we shall represent by *ă*.

The Dravidian dialects have few vowel sounds outside the *a, o, u, i*, and *e*. One of these is represented by Dr. Caldwell as *ei*, but according to his own account it is very close to *e* in sound. It represents no sound particularly different from that found in the Korean *e*. Again, the Dravidian dialects have what the same author calls *au*. But he says of it that "it has no real part in any of the Dravidian languages, and is used only in the pronunciation of Sanscrit derivatives."

When we remember, then, that the Korean special vowels *ö, ũ, ǒ* and *ă* are but slight variations of *o* and *e* we see how closely the sounds of the vowels in Korean and Dravidian are related.

Korean *â, a; ô, o; û, u; î, i; ê, e; ö, ǒ, ũ, ă eu.*

Dravidian *â, a; ô, o; û, u; î, i; ê, e; ei, au.*

The fundamental similarity between the two systems lies in the common use of the five main vowels as *long* and *short*. This is a marked characteristic of the Dravidian dialects and of the Korean. To illustrate, the Korean words *nûn* and *nun* are pronounced exactly alike except that in the former the vowel is prolonged so as to be nearly twice the length of the vowel in the latter. In writing these words the Koreans make no difference, but a failure to preserve the distinction in ordinary speech would produce confusion at once, for the one word means snow and the other means eye. After the enormous lapse of time since the breaking up and dispersion of the original Turanian peoples of India, we would expect to find considerable phonetic changes, but it is just such a fundamental phonetic law as this that we might hope to find unimpaired. And such is the case. The same thing is true of Japanese, and forms, as in Korean, a fundamental characteristic of the language of that people.

Before discussing the vowels in detail, it will be of interest to note that Tamil grammarians have recognised the vowel to be the basis of human speech. They say that the vowel is the life of the syllable while the consonant is the body. In precisely the same manner the Koreans call the vowel the mother and the consonant the child. This is a wide departure from Sanscrit, Hebrew, Thibetan and Arabic, in which the principal letters are the consonants while the vowels are added merely as helps to the enunciation. Such a thing as an "unpointed" Korean or Dravidian text would be quite impossible.

Attention must be called to one difference in the phonetics of the Korean and Dravidian tongues. This is the fact that in all the Dravidian languages every word must end in a vowel sound, while in the Korean this does not hold. In Japanese, on the other hand, not only must every word end in a vowel sound but every syllable as well must do so. If Korean and Japanese are both offshoots of the Dravidian peoples they have diverged from the parent stock in opposite directions, the one intensifying this law while the other departed from it. At

the same time we find in Korean many indications of a similar tendency. For instance every clause in Korean ends in a vowel sound, excepting for the use of *n* which is itself half a vowel. Then there are several of the Korean consonants that can never be used at the end of a word or of a syllable. None of the hardened or aspirated consonants can be so used, nor can the letters *h*, *s* or *ch* ever end a word. Of sixteen possible Korean consonants only six can ever come at the end of a syllable or word.

I. VOWELS. (1) *â* and *a*. In both Korean and Dravidian the long vowels *â*, *ô*, *û*, *î* and *ê* are very strong and suffer few changes, but the short vowels are more readily modified. In the Dravidian *a* shows a tendency to weaken into *e* and in some cases in *ei*. Similarly in Korean this short *a* assumes a very indefinite sound: so much so in fact that there is disagreement as to the proper spelling of many words, some wishing to write *a* and some to write *eu*. And even in some cases where it is always written *a* it is pronounced like *eu*. In Malayalam we find likewise that a short *a* sometimes replaces the short *u* of the Tamil. The weakness of this short *a* in Korean is shown by the fact that it shares with the weak *eu* the function of a "helping vowel" where only a very slight vowel sound is required. .

(2) *î* and *i*. In both Korean and Dravidian these vowels suffer little or no change and require no particular comment.

(3) *û* and *u*. In both Korean and Dravidian *û* is quite strong but in Dravidian the *u* is the weakest of all the vowels and is used largely for euphonic help in pronunciation. Now, in Korean both *û* and *u* are fairly strong, but the Korean *eu* which is wanting in Dravidian and which is only a shade different from *u*, is used in precisely the same way as the Dravidian *u*, namely as a helping vowel. In the Dravidian dialects all words which would otherwise end in a hard consonant are prevented from doing so by the addition of a slight *u* sound which grammarians have estimated to be only one quarter of the full *u* in length. This is very prominent

also in Japanese, where the final enunciative *u* is as short as in the Dravidian. This is not so marked in Korean but the same tendency is seen in Korean attempts to pronounce foreign words. Just as the Tamil pronounces the Sanscrit word *adviata* as *attuviata*, so the Korean pronounces the English word *bread* as *beu-re-deu*.

(4) *ê* and *ô*, *o* and *e*. The difference between the long and short quantities of these vowels is a point which clearly differentiates the Dravidian dialect from the Sanscrit, and it is likewise a point of marked similarity between Korean and Dravidian. Nor does the similarity pertain merely to euphony and inflection, but it forms a radical part of the language. The Sanscrit has no short *o* and *e* (corresponding to the Greek *epsilon* and *omicron*) and this is so radically different from the Dravidian that it can be explained on no theory of a common origin. But in both Korean and Dravidian these distinctions are radical and identical.

II. CONSONANTS. Before investigating the consonantal sounds it will be well to look into a law that runs through all the Turanian languages, the law of the convertibility of surds and sonants. The law is that no distinction is made in the alphabets between surds and sonants. There is no separate sonant form for the letters *k*, *p*, *t*, and *ch*, corresponding to our *g*, *b*, *d* and *j*. Euphonic considerations alone determine whether the letter shall be pronounced as a surd or as a sonant. The Korean agrees perfectly with the Tamil in the use of the same-letter for both surd and sonant. This applies not only to the written character but to the laws of sound which are inherent in the languages. In Tamil as in Korean the consonants *k*, *p*, *t*, and *ch* are always surds at the beginning of words and whenever doubled. The same consonants are always sonants (*g*, *b*, *d*, *j*) when occurring singly in the middle of a word. The very words which Dr. Caldwell applies to the Dravidian are entirely applicable to the Korean, namely:—

“A sonant cannot commence a word, neither is a surd admissible in the middle except when doubled; and so imperative is this law and so strictly is it adhered to

that when words are borrowed from other languages the consonants of those words change from sonant to surd or *vice versa* according to their position." The Sanscrit *danta* becomes *tanda* in Tamil. In the same way the word would become *tanda* in Korean. "This rule applies also to compounds. The first consonant of the second word, though a surd when standing alone, is a sonant when it becomes a medial in a compound word." These words are an exact description of Korean usage. Just as the Tamil word *anna* and *tammula* become *anna-dammula* in compound, so the Korean words *an* and *pang* become *ambang* in compound. But the similarity between the two languages is still more strikingly shown in the fact that, in both of them, "When two compounded words stand in a case relation to each other or when the first is governed by the second, the initial surd of the second word is not softened but doubled and hardened in token of its activity." For instance in Tamil the words *kotta* and *padu* do not combine to make *kotta-badu* but *kotta-(p)padu*; so in Korean the words *hă* (sun) and *pit* light do not combine to make *hă-bit* but *hă-(p)pit*. The statement that "The rule which requires the same consonant to be pronounced *k*, *t* or *p* in one position and *g*, *b* or *d* in another is not a mere dialectic peculiarity, the gradual result of circumstances or a modern refinement, but is essentially inherent in the language" is as true of Korean as of Dravidian. That this law has existed from the remotest times is shown by the fact that it has been discovered in the Behistun Tablet, the oldest relic of any Scythian tongue.

(1) *The Gutturals*; *k*, *g* and *ng* (nasal). In the Dravidian dialects the sonant *g* is pronounced very softly, often so much so as to be almost indistinguishable. This is not so perceptible in Korean and yet in ordinary speech this sound is often passed over lightly. The same tendency is very noticeable in Japan where a large portion of the people pronounce *g* as if it were a soft *ng*.

2) *The Consonants ch, s, j*. The Tamil rejects the sharp Sanscrit sibilants *s* and *sh*. The consonant which

takes their place is a soft *sh* with as little sibillation or aspiration as possible. When doubled, the sound approaches that of *ch* or *tsh*. In Korean we find something very similar to this. The Korean *s* is not pronounced on the tip of the tongue as in English, but is made with a sort of lisp as if *sh* were being pronounced without protruding the lips. This substitution of a soft lisp *s* in place of the pure sibillant seems to characterise many of the Turanian languages, notably the Japanese. So marked is this peculiarity in the use of *s* in Korea that foreigners romanise it now *s* and now *sh*, although in both cases it has the same Korean sound. But we will reserve further consideration of this sound until we take up the aspirate *h*.

The Tamil and the Telugu confuse the *s* and *ch*, since the Tamil *s* is so like the soft *ch*, but in Korean these two sounds have become more differentiated and the alphabet gives us a separate character for the *ch*. It may be of significance that the Korean letter for *ch* is merely a variation of the letter for *s*. We find, too, that the Telugu has a distinct *ts* in place of the Tamil *ch*, and this peculiarity is paralleled by the fact that in certain parts of Korea the people always use *ts* instead of the ordinary *ch*. It is apparent that the phonetic ideas represented by the letters *s* and *ch* have developed in both Korean and Dravidian along the same lines, though in Korea the development has been somewhat more complete.

As to the sound represented by the letter *j*, we find that it is not used in correct Tamil, though it is often substituted for *ch* in common talk. This letter has developed in Korea. It is the natural sonant of *ch*, and the law of the convertibility of surds and sonants requires that in the body of a word a *ch* should be pronounced *j*. For instance, the Korean word *a-ju* is spelled the same as *a-chu*, but the latter would be impossible on the tongue of a Korean, for the open syllable, preceding, forces the *ch* to become *j*.

In all the Dravidian dialects there is an *ñ* or *ny* sound. At the present time there is no evidence of this in the

Korean alphabet but it is plainly visible in the speech of the people. Many Korean words beginning with *ni* are pronounced as if beginning with *ni* or *nyi*, and recent researches (see *The Korea Review* Vol. III, Nos 4 and 5) have shown that the Korean alphabet originally contained a letter corresponding to this very sound, but that the indefiniteness of the sound has caused the letter to be dropped.

(3) *The Linguals and Dentals; t, d and n.* In the Dravidian tongues a distinction is made between the lingual and the dental sounds of *t, d* and *n*. There can be no doubt that the Korean *t* is different from the English *t*, but to describe the difference is not easy. It all depends upon the point of time when the vocal sound is made, in relation to the point of time at which the tongue is withdrawn from the teeth, in making the *t* sound. In English we vocalise instantly *after* the tongue is drawn away, in pronouncing *t*, but in pronouncing *d* we vocalise instantly *before* drawing the tongue away. That one thing makes the difference between a surd and a sonant. Now, while the English *t* and *d* are made by vocalising instantly before and after the movement of the tongue, the Korean *t* is made by vocalising at the *very instant* when the tongue is drawn away. It is for this reason that foreigners so often disagree as to whether a Korean word should be written with a *t* or a *d*. As the sound is just half way between *t* and *d*, one person hears one letter and another hears the other. And right in this connection we meet another peculiar law that characterizes both Korean and Tamil, namely that nasals will not combine with surds but with sonants only. For example the Korean word *an-ta* "to know" is pronounced *an-da* and in the same way the Tamil *man-ta-pa* is pronounced *mandaba*. Dr. Caldwell believed that this is an original distinction and that the reason why it is more prominent in Tamil than in the other Dravidian dialects is because Tamil has remained freer from Sanscrit influence. It seems to me that this is but a further application of the law of the convertibility of surds and sonants, for a nasal is intrinsically a vowel, only pronounced through the

nose; so that when a surd follows a nasal it will as surely become a sonant as when it follows a vowel.

(4) *The Labials; p, b and m.* In both Korean and Dravidian *p* and *b* are one letter, the former being the surd and the latter being the sonant. In both languages the sound of *f* is lacking, its place being taken by *p* when foreign words are to be pronounced. As *m* is a nasal; it changes to *ng*, or *n* before guttural, palatal or lingual surds and these surds become sonants. For instance the word *im-kun* is pronounced *ing-gun*. The same is true of the nasal *n* which, before a surd, changes to the same order as that surd and at the same time changes the surd to a sonant. For example, before a guttural surd *n* changes to the guttural nasal *ng* and before a labial surd it changes to the labial nasal *m*, as in *man-kun* which is pronounced *mang-geun*. This is a law inherent in the very fiber of both the Korean and Dravidian and shows a distinct phonetic relationship.

(5) *The liquids or semi-vowels y, r, l, v.* In no other part of the Korean and Dravidian phonetic systems do we find more convincing evidence of close relationship than in the use of these semi-vowels. In both systems it is impossible to commence a word with either *l* or *r*. In this, Korean differs radically from both Chinese and Japanese. Just as the Dravidian has to say *il-like* for the English word *like*, so the Korean has to say *eul-like* for the same word. In each case the initial *l* has to be preceded by an introductory vowel. The same is true of *r*. It can never come first. The Korean changes the initial *l* of the Chinese *lo-hyung* to *n*, making the word *no-hyung*. In some cases he changes an initial *l* or *r* to *y*, as in the case of *lye* which he pronounces simply *ye*, or *li* which he calls *yi*. But in the body of a word the Korean *l* or *r* (for they are one letter) is often sounded like a single roll of the French *r* which is not unlike a very soft *d*. In fact not a few foreigners pronounce it *d* in such cases and are perfectly understood by the natives. So we find that this single semi-vowel is pronounced variously as *l*, *y*, *r*, *n*, and soft *d*; Turning to the Dravidian usage we find that this is the only consonant that is sounded

differently in different districts. In one it is a cerebral *l*, in another it is *r*, in another *y* and in another still the letter *d* is substituted for it. This letter, therefore, has the same weakness in Korean as in the Dravidian dialects and its variations are identical in the two cases. Caldwell asserts that there is no reason for doubting that this sound is of non-Aryan origin; in other words it is one of the radical peculiarities of this type of language and has survived all the disintegrating tendencies and forces of the centuries.

The Sibilants and Aspirates. We have already spoken of the sibilants. In both the Korean and Dravidian we find the pure *s* lacking, its place being taken by a soft *sh* sound which sometimes approximates to a soft *ch*. The letter *h* is not found in the Dravidian languages. In this they differ from the Korean which makes considerable use of this aspirate. Now and again, however, we find that the *h* and *s* sounds are interchangeable. For instance the word *hyū*, tongue, is very commonly pronounced *syū*. *Hyūng* is as often pronounced *syūng* or *sūng*. It will be noted that the soft, lisping *s* has a close affinity to the letter *h*. One has but to pronounce the word "he" very strongly to see how near *h* can come to a lisping *s*. It is probable that the Koreans have developed the *h* from their soft *s* or that it has been introduced by other branches which have been grafted upon the pure Korean.

Phonetic Interchanges. In the Telugu tongue *k* often changes into *ch* and in Tamil it changes into *ts*. There seems to be a tendency in the Dravidian tongues to confound the sounds of *k*, *ch* and *ts*. The same law is discoverable in Korean. Take the commonest patronymic in Korea, *Kim*. Many pronounce it *Chim* and many others call it *Tsim*. In Canarese we find the word *kinna* which in Telugu is *chinna* and in Tamil *Tsinna*.

In Tamil the sonant *d* is sometimes changed into the vocalic *r* and in Tuda and Telugu the same thing is found. For instance *nadu* becomes *naru*. We have already spoken of this in connection with the semi-vowels but it will bear repetition, The root of the Korean word for

"know" is *al*. When this is followed by a consonant it remains intact, as in *al-getta*, but when it is followed by a vowel it changes to the vocalic *r* or the cerebral *d*. We do not have *al-a* but *a-ra* or *a-da*, the consonant shifting to the second syllable. A similar principle is enunciated by Caldwell when he says "The sonant *d* changes into *r* between two vowels."

In the Dravidian, *y* sometimes changes into *n*. This is not so characteristic of the Korean, yet we find that in every case in which an initial *n* is followed by the vowel *i* it is pronounced almost exactly like *y*, though the sound is a little indistinct. The word spelled *ni*, tooth, is pronounced almost like *yi*; *nima*, the brow, is likewise pronounced *yima*.

Euphonic Permutation of Consonants. In compound nouns where the two words stand in a case relation to each other the Tamil requires that the initial surd of the second word be doubled or hardened. Thus *pulī-tol*, Tiger's skin, becomes *pulī-(t)tol*. Note the identity with the Korean, for the word *hă*, sun, and *pit*, light, are joined to make not *hă-pit* but *hă-(p)pit*, sunlight. Caldwell judges that this doubling is meant to symbolize the transition of the signification of the first word to the second, but I prefer to explain the reduplication of the surd as being a substitute for the possessive case-ending, even as we say "man's book" instead of the original, "man his book."

In order to prevent hiatus between concurrent vowels the common Dravidian method is to insert a *v* or *y*. This is illustrated in the word *vara-illei* which is pronounced *vara-yillei*. A remnant of this same law may perhaps be seen in the commonest Korean verb whose stem is *ha*. The verbal stems of this verb are not *ha-a* and *ha-ū* as we would expect, but *ha-ya* and *ha-yū*.

Harmonic Sequence of Vowels. There is in all the Turanian family of languages an harmonic law which requires that certain vowel sounds shall be followed by certain other vowel sounds according to a fixed rule. This is one of the things which distinguishes the Turanian and Scythian languages from all other types. In the

Dravidian languages this law applies most frequently to the vowels *u* and *i*. For instance *katti* is knife but when the ending *lu* is added we have not *kattilu* but *kattulu*. So *kalugu* when followed by *i* becomes *kaliga*. This is illustrated in the Korean also, though in a less striking manner. The regular past verbal ending is in *u* but whenever the verb stem is in *a* or *o*, the verbal ending will be in *a* instead of *u*. Then again the nominative case ending is *ka* or *ga*, but in the case of the interrogative pronoun in *nu* we find that the nominative case is as often *nu-gu* as *nu-ga*, the vowel of the stem having attracted the vowel of the ending into its own form.

Principles of Syllabation. The Dravidian languages dislike compound or concurrent consonants. At the beginning of a word or of a syllable only one consonant is allowed, and even in the body of a word when two consonants come together they must be either phonetically assimilated or separated by a vowel sound. This is identical with the Korean laws of syllabation. All such combinations as *str*, *ngth*, *pl*, *pr* or *kl* are inadmissible. In Korean as well as Dravidian two consonants in the middle of a word must be assimilated, and the laws which govern this assimilation are the same in each case. For instance, if a semi-vowel is followed by a surd the latter must become a sonant; *anta* must become *anda*, *alket* must become *alget*, *nampawi* must become *nam-bawi*. So also when a surd is followed by a semi-vowel, the surd must change to the sonant of the same order as the semivowel. *Apnok* will become *amnok*, *akma* must become *angma*. In both languages there is the same delicacy of phonetic construction, and the same methods are adopted to overcome phonetic infelicities.

Korean and Dravidian both have a form of metathesis. The Tamil *tasei* becomes *sadei*. This is the same as the change in Korea from *hajago* to *hagoja*, in the desiderative from of the verb. A euphonic displacement of vowels is also found. In Dravidian the initial vowel may migrate to the end of the syllable, as when *idini* become *diini*. Likewise in Korean, when the causative particle *i* is added to the stem of certain verbs it

passes over into the stem itself. The word *chap* becomes *chaip* when *i* is added, so that we have not *chap-i* but *cl' ip-i*. So also *no:* becomes *noik-i*, *mek* becomes *meik-i* and *mak* becomes *maik-i*. In most cases the *i* is inserted in the stem as well as retained in the ending.

Accent. In all the agglutinative languages the first syllable will usually be found to be the stem, and it is here that the accent resides. In all words of two syllables, either in Korean or Dravidian, the accent is on the first syllable, but where there are more than two syllables there is found a secondary accent.

CHAPTER II.

Word Stems.

The Korean language agrees with all others of the Turanian family in its agglutinative character. In Korean and Dravidian both, we find that by far the greater number of roots are either verbal stems or noun stems, the former largely predominating.

Verbal Roots. Caldwell tells us that the Dravidian languages commonly use the crude stem of the verb as the imperative of the second personal singular. This is notably true of the Korean where by far the greater number of commands are given by the use of the verbal stem alone. Many Dravidian roots are used as verbal themes or as nouns without alteration. This is so true of Korean that almost every other sentence will contain such a word.

Many Dravidian dissyllabic nouns have their second syllables in *al*, which is a verbal enclitic, and all such words may be considered verbal derivatives. *Viral*, finger, comes from *viri*, to expand; *kadal*, the sea, is from *kadr*, to pass beyond. This is closely similar to the formation of Korean verbal nouns in *am*. This ending is a verbal enclitic denoting perfected action, so from the verbal root

sai (or *sar*) we get *saram*, a man; from the root *sur*, to mourn, we get *suram*, sorrow; from *pu*, to blow, we get *param* (*puram* in the provinces), wind. A striking likeness to this is seen in the Tamil *nilam*, ground, derived from *nil*, to stand.

In Korean as in Dravidian many of the post-positions, adverbs and particles used in inflection are known to be verbs or nouns adapted to special uses. In either language the locative of rest may be formed by the use of any noun that signifies place.

Both languages are highly polysyllabic but there is much evidence to show that they were originally monosyllabic. The agglutinative character of each accounts for the apparent polysyllabism. Even as Caldwell shows that the word *perugugiradu* is simply the stem *per* with various modal, temporal and personal endings, so it may be said of the Korean verb *poatgessimnidago* which is simply the verb *po* with various terminations. In each language the stem of the word remains unchanged and can be immediately pointed out even by the merest novice.

Euphonic Lengthening of Roots. The final consonant of various verb stems is lengthened by the addition of an euphonic vowel. The vowel most commonly used for this purpose in Dravidian is *u* and in Korean *eu*. In Korean it is generally used with verbs whose stems end in *l* or *r*. The root *tal* (or *tar*) when followed by the common ending *ta* becomes not *tal-ta* or *tar-ta* but *ta-reu-ta*. Dr. Gundert, another authority on the Indian dialects, considers the vowel *u* to be the only euphonic vowel, and as the Korean *eu* is almost identical with this, it will be seen how close is the similarity.

Formative Additions to Roots. We do not like the indefiniteness of this term. We desire to know *what* is formed and *why*. Caldwell says that "Whatever may have been the origin of these particles they now serve to distinguish transitive verbs from intransitive." And yet in the examples which he gives, the causative idea is most prominent. For instance he gives *perugu* as "to become increased" but *perukku* as "to cause to increase."

The Tamil formatives are *ku*, *su*, *du* and *pu*, together with the corresponding harder forms *kku*, *ssu*, *ttu* and *ppu*. It is these harder forms that are used to indicate the transitive or causative meaning. It is not known what grammatical end is served by the simple formatives *ku*, *su*, *du* and *pu*, but it is known that the hardening of these particles into the forms *kku*, *ssu*, *ttu* and *ppu* has the effect of giving a transitive or a causative meaning. Native Dravidian grammarians consider the simple *ku*, *su*, *tu* and *pu* to be parts of the stem. Caldwell disagrees with this but can give no explanation of what the use of the particles can be.

Now the first of these transitive, causative particles is *kku*, as found in such combinations as *peru-kku*, cause to increase, *kay-kku*, to cause to be hot (to boil), *ratti-kka*, to double (i. e. to make double), *pagu-kku*, to divide. I would call attention to the fact that in Korean the very same result is obtained by adding *ge* or *kke* to the stem of the verb. *Nop* is the root meaning high but *nop-ge* gives the causative idea, to make high. In like manner *ka*, to go, gives *ka-gê*, to make to go, *mûk* to eat, gives *mûk-ke* to cause to eat, *sal*, to live, gives *sal-ge*, to cause to live. But in Korean it is perfectly evident that this *ke* or *ge* is the future verbal ending. *Ka-ta* means to go, but *ka-get-ta* means will go. *Muk-ta* means to eat but *muk-ket-ta* means will eat. It is easy to see how the future verbal ending might be used to express a causative idea, for causation necessarily involves the idea of futurity. The phrase "I will make him go" might also be rendered "I will cause that he shall go." Can we find anything in the Dravidian to correspond to this? Turning to the verbal endings the first thing we see is that one of the most important of all the future verbal endings is in *g* or *kk*. Caldwell seems to have noticed this coincidence, for he says "This *g* or *kk*, though used in a futuristic sense, seems to connect itself naturally with the formative *g* or *kk* which constitutes the ordinary formative of many verbs." This coincidence is all the more striking in that the Dravidian formative *b* or *pp* is also used as a sign of the future.

But the Dravidian formative *d* or *tt* has also its counterpart in Korean. The Tamil *padu* means to lie down, but *padu-ttu* means to lay down; *tar* means to be low but *tar-ttu* means to lower. Now in Korean we find something very similar in a certain class of verbs. *dūrūjinda* means to fall, but if it be changed to *dūrūt-tirinda* it means to let drop. In like manner *nūmūjinda* changes to *nūmūttirinda*. This change in form indicates a change from an intransitive to a transitive, causal or inceptive idea.

Particles of Specialization. The Dravidian languages have groups of words that have a generic likeness but specific differences. For instance, in the group consisting of the words *adu*, *adangu*, *adi*, *adei*, *adcisu*, *adar*, *aduku* and *andu* which mean, to come near, to be contained, to drive in, to fetch in, to stuff in, to be close together, to pile up and to approach, we see that the first syllable *ad* is the same in almost every case and we also see the generic similarity in the definitions. This has suggested the idea that the syllables added to this common root are particles of specialization. It is probable that the same thing can be found in almost all languages. It is quite certain that such groups are common in the various branches of the Indo-European family. Their existence therefore in the Korean cannot be adduced as an argument pointing to a close relationship between Korean Dravidian, but it will be in place to illustrate the prevalence of this law in Korean. The root *sal* means live. The letter *l* is weak at the end of every root in Korean and sometimes disappears. The following are some of the words closely connected with this root. *Salyu* (*chu*) to save life; *sal*, flesh (of living animal or man) *saram* (*sal-am*), man, the living one; *haru-sari*, the ephemeridae or "one day liver." So also from the root *mat* we get the ideas of touch, reach, hit (a mark), taste, fit, agree etc.

Internal Changes in Roots. As we have already pointed out, the Turanian languages as a rule know nothing of internal changes in the root of a word. Such changes are so very exceptional that hardly any rule can be formulated in regard to them. But there are isolated

scases where a slight change will be found to have taken place in the stems of words even in these languages. To how how insignificant these changes are, we have but to cite a few cases. The Canarese *dogal* becomes *tol* in Tamil, but while the *o* of *togal* is short that of *tol* is long. This means that the Tamilians have shortened the word by dropping the *g* but have compensated for it by lengthening the *o*. In the same way *toguppu* has become *toppu* (with a long *o*). The Korean is affected in precisely the same way. The word *mang-han* is usually pronounced *ma-han*. The ancient *sū-ya-būl* has shrunk to the dimensions of *Sū-ul*. These changes are simply phonetic and result merely from phonetic decay. They can hardly be said to illustrate the internal changes in roots.

But we find certain cases where the change is not merely euphonic but real. The nominative case of the personal pronouns in Tamil have the long vowel while in most of the oblique cases this vowel is short. The same is true of Canarese, Malayalam and Tulu, but in Telugu, Gond and Ku the quantity of the vowel is unaltered in oblique cases. Caldwell claims to have found reason for believing that this change in the quantity of the vowel dates from the earliest times, and finds it even in the inscriptions on the Behistun tablet. Now it cannot be said that the Korean is strongly marked by this peculiarity, but it is true that the vowel of the root is lengthened in several pronouns before the addition of the plural ending. For instance the root of the second personal pronoun is *nū* but the plural is not *nū-heui* but *nō-heui* (*ō* being the long form of *ū*). In the same way the demonstrative *chū* has its plural in *chōheui*.

In the third place we find that in some of the Dravidian dialects the quantity of the root vowel is changed when a noun is formed from a verb stem. In Tamil the verb *pādu*, to suffer, gives the noun *padu*, a suffering *Mīn*, to shine, gives *min*, a star. *Kōl*, to receive, gives *kol*, reception. These exceptions in Tamil have corresponding ones in Korean though the study of Korean etymology is still too rudimentary to give the best results.

And yet, compare what has been said about the Tamil with the fact that the Korean verb *sâl*, to live, having a long *a*, gives the noun *sari* (*sali*) with a short *a* in such combinations as *salyim-sari*, *haru-sari*, *pyûsil-sari* and the like.

The fourth and last case in which the Dravidian makes a change in the quantity of the vowel of the root is in certain verbs which have a long vowel in the root but change to the short vowel in the preterite tense. *Vê*, with long *e*, to burn, gives *vendu* for its preterite, with short *e*. *Kân*, with long *a*, to see, gives for its preterite *kandu*, with short *a*. In precisely the same manner the Korean verb whose root is *kôt*, to walk, gives *kûrûtta* for its preterite but retains the long *ô* in the future. This and other Korean verbs also illustrate the change indicated in the previous paragraph, namely the change in quantity in nouns derived from verbs; for from *kôt* we derive the noun *kûreum*, from the verb *söl* to be unripe or under-done, we have the nouns *reum*. In both these cases the change is from the long to the short vowel.

CHAPTER III.

The Noun.

Gender. The imaginative nature of the Indo-European peoples has resulted in an exceptional development of the idea of gender. Not only do they attribute gender to rational beings and animals, but also to all sorts of inanimate objects in which the idea of sex cannot possibly inhere.

But in all the northern branches of the Turanian family a law prevails which is radically at variance with that which characterises the Indo-European languages. Not only do these denote all inanimate objects as neuter but even animals and human beings are left destitute of gender. Neither in the nominative case nor in the oblique cases of the Turanian nouns is there any indication of sex distinction. Sometimes it is absolutely necessary to in-

dicating sex, but when it is done some word is added which conveys the necessary meaning.

Now the Dravidian languages cannot be said to correspond precisely with either the Indo-European or the Turanian in the matter of gender. And yet the statement that the Dravidian follow more closely the Turanian than the Indo-European is corroborated by Caldwell's opinion that "It may be stated as a general rule that all primitive Dravidian nouns are destitute of gender and that every noun or pronoun in which the idea of gender is formally expressed, being a compound word, is necessarily of later origin than the uncompounded primitives." He also says that the poetical dialects which retain many of the primitive landmarks are fond of discarding the ordinary suffixes of gender or rationality and treating all nouns so far as possible as abstract neuters. In the old Tamil of the poets, the name of the sun and moon, of the stars and planets are neuter.

All Dravidian names of towns, rivers etc. are destitute of gender. On the whole it would seem that in spite of later developments the original Dravidian noun had very little to do with the idea of gender. The intellectual growth of the people gradually brought this form of grammatical variation, but notice in what an irregular manner; for while one dialect distinguishes between the genders in the singular and not in the plural, others hardly distinguish it at all. It is generally the most highly developed of the Dravidian languages that differentiate most carefully between the genders. Gender, in other words, is an idea not radically inherent in the Dravidian thought as it is in the Indo-European, but is an overgrowth, an adventitious product.

And yet there is in the Dravidian languages an important logical division which should not be overlooked, and one which has determined the grammatical usage of distinctive marks of gender. They distinguish clearly between beings *endowed with reason* and beings or objects which though animate are *not* endowed with reason. This is a logical distinction which is more radical than that of sex, and it existed in the Dravidian mind be-

fore the utility of a grammatical distinction in sex became apparent.

Now this logical division into rational and irrational is preserved intact in Korean and it shows an affinity with the southern or Dravidian branch of the Turanian family rather than with the northern or Scythian branch. This distinction will be shown clearly when we take up the declension of the noun and it is sufficient to say here that this idea of rationality and irrationality is the only one that makes it possible to say that there is more than one declension of the Korean noun. The case endings of a noun denoting a rational being are in several important particulars different from those used with the name of an irrational being or a mere object. Caldwell says that this is not the only particular in which the Dravidian languages attribute greater importance than the Indo-European to the reason and the mind. The Indo-European makes the body the seat of personality. He says "I am ill," but the Dravidian says, more philosophically "My body is ill." I mention this here because the very same thing is true of Korean. The Korean never says "I am in pain" but always "My body is in pain."

In some cases Malayalam and Canarese retain the primitive laws of gender more faithfully than the Tamil. For instance, in Tamil *peiyān* means boy and *peiyāl* means girl, the *an* and the *al* being the masculine and feminine terminations; but in Malayalam and Canarese we find the older word *peidal*, a word destitute of gender, to which are prefixed the words *an* and *pen* meaning male and female respectively, so we have *an-peidal* and *pen-peidal*, or male child and female child. It is this latter usage which prevails in Korea. We say *am talk* and *su-talk* for hen and cock, these words being literally female fowl and male fowl respectively. Then again in Korean we sometimes find entirely different words for the male and the female of the same species; for instance the male pheasant is called a *changkeui* and the female is called a *gateuri*, while the word *gwong* means either a male or a female pheasant.

Every Dravidian noun is naturally neuter or destitute

of gender and it becomes masculine or feminine solely by virtue of the addition of a masculine or feminine suffix. The neuter is therefore the normal form of the noun and there is no neuter ending such as the *an* and the *al* which form the masculine and feminine singular endings: And the absence of any feminine ending in Telugu and Gond which use the neuter forms instead, would indicate that in ancient times the masculine and feminine endings were appended because of the intellectual development of the people and perhaps because of contact with the Aryan conquerors. In the plural there are no masculine or feminine signs.

Number. In both Korean and Dravidian we find but two numbers, singular and plural. They reject the dual. The number of a Dravidian noun, especially when neuter, is usually indefinite and it is left to the context to determine whether it is the singular or the plural. Poetic language and the common vernacular, which preserve most perfectly the older forms of speech, do not often pluralise a neuter noun. This holds true more specially in Tamil, the dialect which preserves most perfectly the original status of the Dravidian tongue. The same rule may be laid down for Korean. It is usually considered unnecessary to pluralise a noun if the context will indicate the plurality. In Tamil *madu* means ox, and *madu-gal* would be the regular plural but when they wish to say "Four oxen are eating" they do not say *nalū madu-gal meygiradu* but *nalū madu meygiradu*. Compare this with the Korean. *So* means ox and *so-teul* would be the plural, but it would not do to say *ne so-teul mŭknanda* for "Four oxen are eating." *Ne so-mŭknanda* would be correct, literally "Four ox is eating."

Caldwell declares that "The number of all Dravidian nouns was originally indefinite. As civilization made progress the plural sign made its appearance." From this it is clear to me that Korean and Dravidian follow the same law, and though at present the Dravidian is more highly developed in the grammatical distinction in genders, this development has occurred since the scattering of the pre-Aryan population of India.

The masculine singular suffix of Tamil is *an* or *on*. The feminine ending is *al* and neuter is *du*. The Korean knows nothing of any grammatical distinction such as this but let us look at the Korean usage and see if we can discover any marked likeness, even here. In Tamil the generic word for man is *al*. This means a person. Caldwell shows that this is the basis of the word *an* meaning male, and it is also doubtless the origin of *al* meaning female. The male and female terminations therefore are simple modifications of the single word *al*. The neuter is entirely different, *du*. Now the Korean generic term for man, *saram*, is used in precisely the same way as the Dravidian in forming appellative nouns, which is also its principal use in the Dravidian tongues. For instance *mupp* means age and by adding *an* we have *mupp-an* meaning aged-man or elder. Even so in Korean we would have *neulgeun* meaning old and *saram*, man joined to make old man or elder. But the Korean very often uses the same termination as that of agency, namely *i*, after adjectives and participles, to make such appellative nouns. While the Dravidian has differentiated between the feminine and the masculine in the singular, the Koreans have retained the epicene character of the *saram* and the *i*. Turning now to the neuter we see that while, for instance, the Tamil has *nalla-an* for good man and *nalla-al* for good woman, it has *nalla-du* for good thing. The end *du* means thing. In the same way the Korean has *choheun saram* or *choheun-i* for either good man or good woman but it has *choheun-güt* for good thing. This word *güt* corresponds precisely with the Dravidian *du*, in its grammatical usage. Witness Tamil *al-du*, thing that is not; Korean *ömnan-güt*, thing that is not. *Peri-du* in Tamil means great thing; in Korean this would be *k'eun-güt*. But even more striking than this is the other use to which these corresponding endings are put in both the languages, namely in the formation of verbal nouns. In Tamil *pogira-du* *pona-du* and *pova-du* are present, past and future respectively and mean not the thing that is going, has gone and will go but the act of going, the having gone and the being

about to go. In precisely the same way the Korean uses the word or ending *gūt*. *Kanan-gūt*, *kan-gūt* and *ka-l gūt* mean the act of going, the having gone and the being about to go. Surely there is more than mere coincidence in this.

The plural. Before discussing the terminations of the plural we must repeat what we said above, namely that all Dravidian, as all Korean, nouns were originally indefinite as to grammatical expression of number. Thus the Tamil *madu* does not mean exclusively either ox or oxen but may mean either. If we wish to specify singularity we must say *oru madu*, one or a certain ox. In the same way the Korean will say *han so* or *so hana*, one ox. This use of the numeral "one" is much like our indefinite article a or an and it is as true of Dravidian as of Korean that "Europeans in speaking these languages use this prefix of singularity too frequently, misled by their habitual use of the indefinite article in their own tongue."

The plural or Indo-European noun has a different set of case endings from the singular, the idea of plurality not being separately expressed but being compounded with the case ending. On the other hand the Korean agrees with the Dravidian in having the same case ending for the plural as for the singular, the sign of plurality being inserted between the stem and the case ending. The sign of plurality is the same for the oblique cases as for the nominative. In both languages the sign of plurality is a fixed quantity, an unalterable post-position, and is not suffixed to the case ending nor compounded with it but is attached directly to the root itself and is followed by the case-ending. To illustrate this, let us take a Tamil and a Korean noun and note the use of the pluralising particles.

	Tamil	(Singular)		Korean
Nom.	manei		Nom.	chip
Acc.	manei-ei		Acc.	chip-eul
Instr.	manei-al		Instr.	chip-euro
Conj.	monei-odu		Conj.	chip-kwa

(Singular continued)

Dat.	manei-kku	Dat.	chip-e
Abl.	manei-ilurundu	Abl.	chip-esu
Gen.	manei-inandu	Gen.	chip-eui
Loc.	manei-idattil	Loc.	chip-e
Voc.	manei-e	Voc.	chip-a

(Plural)

Nom.	manei-gal	Nom.	chip-teul
Acc.	manei-gal-ei	Acc.	chip-teul-eul
Instr.	Manei-gal-al	Instr.	chip-teul-lo
Conj.	manei-gal-odu	Conj.	chip-teul-gwa
Dat.	manei-gal-kku	Dat.	chip-teul-e
Abl.	manei-gal-ilirundu	Abl.	chip-teul-esu
Gen.	manei-gal-inadu	Gen.	chip-teul-eui
Loc.	manei-gale	Loc.	chip-teul-a
Voc.	manei-gale	Voc.	chip-teul-a

The Pluralising Particles. In the Dravidian languages the vast majority of nouns are neuter, since only beings possessed of rationality are distinguished as male or female. The pluralising particle for all these neuter nouns is *gal* or some modification of *gal*. We shall discuss this later, but we must notice that for the comparatively few masculine and feminine nouns the Dravidian languages have a separate particle of pluralisation. This is an epicene plural ending, for the Dravidian nouns do not distinguish between the masculine and feminine genders in the plural. This particle is variously *ar*, *or*, *er* and *ir* in the various dialects. But in both Tamil and Malayalam we find that there is another particle of plurality applicable to rational beings, *mar*. In modern Tamil *mar* is suffixed to nouns signifying parents, priests, kings &c. as a plural of honor, but it may be suffixed if necessary to any class of nouns denoting rational beings. In Malayalam it is used with a wider range of application and in many cases where there could be no honorific idea. For instance *kallan-mar* means thieves. "The antiquity of many of the forms of the Malayalam grammar favors the supposition that in ancient Tamil, which was identical with ancient Malayalam, *mar* may

have been generally used in place of *ar* as the ordinary pluralising particle of high-caste nouns." Now we find in Korean that ordinarily the same pluralising particle is used in all nouns whether they represent rational or non-rational beings. This ending is *teul*, but the Koreans often make use of another ending which is applicable only to rational beings. It is the particle *muri*. We may say either *saram-teul* or *saram-muri* for men, either *uri-teul* or *uri-muri* for we. This ending of rational nouns is so nearly the same as the Dravidian *mar* as to cause some food for thought. We are told that in the Dravidian this ending *mar* is attached in a slightly different way from the ordinary pluralising particle, in that it is appended not to the crude root but to the singular suffix. This would indicate that the ending *mar* was originally a separate word meaning a company or collection, and when the *m* was dropped in the course of time the remaining *ar* became simply an inseparable suffix. This fact strengthens the supposition of a radical relation between the Dravidian *mar* and the Korean *muri*, for the Korean word is still hardly inseparable. It is never used alone in Korean and yet it is still considered a separable word meaning a company or collection. The striking similarity in form and the identity in use both go far to establish the close relationship of these two endings.

Passing now to the more important neuter pluralising particle *gal* or *kal* we note that its use in this or some allied form is universal in the Dravidian tongues. In Telugu the *g* is ordinarily dropped, but Caldwell shows (p. 141) that the old pluralising particle *gal* is almost as plainly exhibited in Telugu as in Tamil. In the Gond dialect again we find that the latter part of the ending is lost and the *k* or *g* alone survives. We may confidently affirm therefore that the ending *gal* or *kal* is the general pluralising particle for all the Dravidian languages. There is a radical difference between this and the Korean *teul*, all the difference between *k* and *t*. We do not believe in forcing any theory of similarity by doing violence to the laws of phonetics, and if we are to show that the Dravidian *gal* and the Korean *teul* are

identical it must be by a course of reasoning that will commend itself to the most sceptical. In the first place Caldwell tells us (p. 142) that *k* is sometimes found to interchange with *t* in the languages of High Asia. This change appears also in the Gond dialect of the Dravidian, for while *k* is the particle in general use, the pronouns of the first and second persons form the plural by adding *t* to the nominative. In Brahui also the *k* is found only in the nominative and is replaced by *t* in all the oblique cases. The Ostiak dialect of northern Asia has *tl* as its plural suffix, and *t* is the sign of the plural in Mongolian and Calmuck. Caldwell also says (p. 143) "In those cases of the interchange of *t* and *k* in which it can be ascertained with tolerable clearness which consonant was the one originally used and which was the corruption, *t* sometimes appears to be older than *k*. Thus the Doric *tenos* is probably older than the Aeolian *kenos*. In several of the Polynesian dialects *k* is found instead of an apparently older *t*." But he also shows that the *k* is sometimes older than *t* by citing the Greek *tis* as compared with the older Sanscrit *kas* and he adds "If in accordance with a portion of these precedents, where *k* and *t* are found to be interchanged, *t* is to be regarded as older than *k*, it would follow that the Dravidian *kal* may originally have been *tal*. * * * * The Dravidian *tala*, one of the meanings of which is a heap, a quantity, would suit very well, but even this derivation of *kal* is destitute of evidence. The suppositious Dravidian *tal* may be compared with the Ostiak plural suffix *tl*, but in the absence of evidence it is useless to proceed with conjectural analogies." It seems to be fairly well established that *k* and *t* are, and have been, interchanged from time to time and we cannot escape the conviction that had Caldwell been aware of the Korean plural suffix *teul* he would have cited it in support of the theory that the Dravidian plural suffix *kal* was originally *tal*, which is practically identical with the Korean *teul*.

CHAPTER IV.

The Formation of Cases.

Principles of Case-formation. The laws governing the formation of cases in Dravidian are the same as those which obtain among the Scythian branches of the Turanian family. In the Indo-European languages we find that though the case distinctions were probably at first expressed by separate words, suffixed to the noun, these suffixes have become so welded to the roots to which they were appended as to have become technical case-signs, and the original significations of these post-positions are now unknown or are hardly more than guessed at. In Dravidian, however, most of the post-positions are in reality separate words and they retain clear traces of their original character as auxiliary nouns. In some of the more cultivated dialects, to be sure, some of the case ending have lost their separable character, but there is far more evidence of their original autonomy than there is in the case of the Indo-European case-endings. Another radical difference already alluded to is the fact that the Indo-European languages have been planned throughout to have different case-endings for the plural and the singular. Now the Korean method agrees with the Dravidian in every particular. In each the case endings are the same for the singular and the plural. In each the case endings are appended directly to the stem in the singular but to the plural suffix in the plural.

The Number of Declensions. The Korean agrees with the Dravidian, as with all the Turanian languages, in having but one declension, strictly so called. To be sure there are some modifications in the endings, but these will be found to depend simply on euphonic necessity. Nothing could be more distinctive of Korean than what Caldwell says of the Dravidian: "The number of cases in Tamil, Telugu etc., is almost indefinite. Each post-position annexed to a noun constitutes, properly speaking, a new case, and therefore the number of such cases depends upon the requirements of the speaker and the different shades of meaning he wishes to express." But we

find that Dravidian grammarians have followed the usage of the Sanscrit and have decided arbitrarily upon eight cases as forming the declension of the noun. It is certain that the Korean declension cannot be restricted to eight cases. The number would be nearer twenty. But as some limit must be set, we will follow the usage of the Dravidian grammarians and discuss the eight cases posited by them.

The Nominative. Neither in the Scythian nor the Dravidian branches of the Turanian family do we find any genuine nominative case ending. The Dravidian nominative singular is the crude stem without addition or alteration. Now the Korean differs in this respect from all other members of family, whether Scythian or Dravidian, for it has a distinct nominative case ending. It will be interesting however in this connection to study three exceptions to the rule that the Dravidian has no nominative case ending.

(1) The neuter termination *am* has been supposed by some to be a nominative case sign. It is discarded by all the oblique cases in the singular, and this is the only argument for believing that it is a case termination. It is retained throughout the plural in all cases and this seems to refute the argument. Caldwell agrees with Gundert in believing that this neuter ending is an obsolete demonstrative pronoun meaning "it." We need not go into the argument by which he arrives at this conclusion, but if it is true, it may give us a slight clue as to the origin of the Korean nominative endings, for, singularly enough, both the Korean nominative endings are almost identical in form with the two most common demonstrative pronouns. These endings are *i* and *ka*, while the demonstratives are *i* and *keu*. The former is used after nouns ending in a consonant and the latter after nouns ending in a vowel. It would not be difficult to conceive that the nominative was formed by suffixing these two endings as phonetic laws required. If *mara-m* or *maram* in Tamil means literally tree-it, there would be no difficulty in saying that the Korean *namu-ga* (*ka*) means tree-that and that *saram-i* means man-this.

Inflectional Base of Oblique Cases. It is true both of Korean and Dravidian that a very large number the nouns have the simple stem of the word as the inflectional base without addition of any kind. Of Korean this is so true that we can find no more than a trace, if that, of any increment of the base in forming the oblique cases. But in the Dravidian languages this inflectional increment is not at all uncommon and forms a conspicuous element in the inflected word. This increment consists of a syllable or letter interposed between the stem and the case ending. These particles differ with the different dialects and no satisfactory explanation is given as to their origin or use; whether they are for euphonic purposes or whether they have some intrinsic use in the word. If, as is generally supposed, the case endings were originally separated words, we should not be surprised to find the gradual growth of some connecting link between the noun itself and the following noun, which has now become a case-ending. Such a particle or connective would simply indicate that the two words are closely related. A striking instance of this is found in the construct case in Hebrew, which indicates that the noun is qualified by, or is in close logical connection with, a following noun. Now Caldwell surmises that this increment is in the nature of, or is a remnant of, a locative ending, for it is often used alone without further ending as a locative or possessive. But if we examine further we will find that almost all the particles used as the inflectional increments correspond very closely with the regular genitive, or possessive, case-endings. The increments are *in, ni, na, ad, ar, ti, attu* and *attru*. The various genitive endings are *in, ni, na, a, de, ti, attu* and *attru*. In view of this practical identity can we not confidently affirm that the Dravidian inflectional increments are simply uses of the possessive case endings? If this be so it will be interesting to see how many of the Korean case endings are similarly put together, especially those that are compound in form. We must preface this by saying that many Korean case endings are manifestly compounded of two or more other case-endings. The Korean

allows the utmost license in this matter. The case ending of specification may be appended to the case endings of the genitive, locative, ablative or instrumental at will; the instrumental and ablative endings may be used in conjunction, and even the locative, instrumental and ablative endings may be used in conjunction after a single word. Now we find that several of the Korean case endings are so compounded as to suggest a similar use of the possessive case ending. In Korean this ending is *eui*, and the case endings to which I refer are *eui-ge*, *eui-sū* and *eu-ro*, these being respectively the dative, ablative and instrumental case endings. In each of these cases the final syllable alone is used to indicate the case relation without the intervention of the *eui* or *eu*. For instance we would not say *nara-eui-ge* for "to the kingdom" but simply *nara-(g)ge*; not *inggeum-eui-ge* for "to the King" but *inggeum-(g)ge*, the *g* being hardened in such cases. Some might argue that the hardening of the *g* is in compensation for the dropping of the *eui*, but as this ending *(g)ge* is a much higher honorific than *eui-ge* we would hardly expect people to slide over the pronunciation by the use of such a substitute. We conclude that *ge* was the real locative ending and that the *eui* is something in the nature of the inflectional increment of the Dravidian, especially since in both cases the increment corresponds precisely with the form of the regular possessive case-ending. In the case of *eui-sū* the same thing is repeated. It is very common to find the *sū* used alone without the *eui*. For instance we say *sigol-sū* for "from the country" and not *sigol-eui-sū*. As for *eu-ro* we have many cases where the *eu* is dropped without any phonetic necessity whatever. Nor can I forbear to call attention to what may be considered a mere coincidence. Caldwell finds it difficult to determine whether these increments were originally locative or genitive in character, or at least he implies (155) that it was sometimes one and sometimes the other. Now in modern Korean some scholars claim that this *eui* should be written *e*, which is the most common of the locative case endings, and it is true that in the ordinary usage it is so pronounced. It

is indeed singular that the Korean and Dravidian should coincide so closely even in such minute particulars. And yet it will be seen that we are not "proving too much," for these peculiarities are radical and primitive ones which may easily have existed before the separation of the pre-Aryan peoples of India. But, having lingered perhaps too long on these preliminaries, let us pass on to the oblique cases, to which the above remarks are prefatory.

The Accusative Case. There is nothing specially worthy of note in connection with this case ending. In both Korean and Dravidian the same ending is used in the singular and in the plural, and in each case the ending is dropped where there is no likelihood of ambiguity.

The Instrumental Case. The Dravidian languages have their regular instrumental case-endings, which are of course inseparable suffixes. After enumerating these, Caldwell says (p. 173): "A secondary or periphrastic mode of forming the instrumental case which obtains in the Dravidian languages is by means of the preterite verbal participle of the verb "to take." For instance *kattiyei konu* is literally knife having taken, but the force of it is the same as English "with a knife." This is precisely the way in which the Korean expresses the same idea. He very commonly uses the verbal participle of the verb "to take" in this same sense. For instance he says *k'al kajigo* which is literally "knife having taken and," but the real signification is "with a knife." The importance of such a striking similarity of usage seems to me very great.

The Conjunctive Case. Some call this the social ablative. Either term would do, for it simply connotes accompaniment and is best rendered by the English word with; not in such a phrase as "with a knife," for that would be instrumental, but in such a phrase as "with my brother." The two nouns, between which this ending shows a relationship, are supposed to be in some sense coördinate, and it would not be used in such a sentence as "I went with a gun," although the word *with* here does not denote instrumentality. In many if not all the

Turanian languages this idea of accompaniment requires a separate case for its proper classification, while in the Indo-European languages it is confused with several other ideas under the ablative case. The form of this case ending in the various Dravidian dialects is variously *odu*, *udan*, *todu* and *da*. In Korean we have this same case and as clearly marked as in any of the Dravidian languages. Ordinarily the Korean uses the termination *wa* or *gwa* according as the noun ends with a vowel or with a consonant, but the ending *do* is also in universal and constant use. It has perhaps a more separable character than the Dravidian ending and may be compared closely with our English *also*, and yet its intrinsic character is identical with that of the Dravidian ending. The Korean sentence *na do kasso* means I also went, implying accompaniment with some one else. The strong phrase *na do kago do keu-suram do kanda* means literally "I also go also he also goes," which is an emphatic way of saying that we both go. Attention should be drawn to the great similarity in form between the Korean ending and the Dravidian endings. The Korean *do* is closely allied in form with the Dravidian *odu*, *udan*, *todu* and *da*.

The Dative Case. This term is used here to represent the idea of motion to or toward, and not in the sense in which it is exhibited in the sentence "He gave the book to me." In all the dialects of the Dravidian there is but one suffix for the dative case. This would imply great antiquity and it is here that we might expect to find similarity with the Korean if anywhere. The basis of the Dravidian dative ending is *k* or *g*. It occurs with various vowels and assumes the forms *ku*, *ki*, *ke*, but the commonest of these is the last. Now in Korean we find that the dative ending for all rational beings is *eui-ge* of which the *eui* is, as we have pointed out before, probably an inflectional increment. We have left, then, the syllable *ge* or *ke* which is identical with the Dravidian form. But we find that in Korean, even with rational beings, the natural phonetic indolence of the people has allowed the last syllable of the *eui-ge* to drop, and with neuter nouns

the *ge* never appears. The fact, however, that both forms have been retained in the case of rationals indicates that the full form was *eui-ge* and that it has been gradually worn down to *eui* (or, in ordinary speech, *e*). But more striking even than this is what Caldwell surmises to be the origin of the Dravidian dative ending *ku*. He says "Looking at such nouns of direction as *vadakku*, north, and *kirakku*, east, we find the final *ku*, though a dative or directive in signification, indistinguishable in form from the *ku* which is a sign of futurity in the oldest form of the Tamil verb. Can it be that the *ku* is the same and that the root idea in each was transition? This does not explain how *ku* came to mean transition, but it indicates the direction in which inquiry may be made." (p. 179). We would venture on no dogmatic statement in this connection but may it not be set down as at least a remarkable coincidence that the sign of futurity in every Korean verb is *ke* or *ge*, identical with the base of this dative ending?

The Ablative of Motion. The object of this case is to answer the question, Whence? and "this answer is obtained in the Dravidian tongues by suffixing to a noun of place the sign of the locative and following it by a *vero* of motion. But in Tamil this *vero* of motion must be preceded by the verbal participle *nindru*, standing, or *irundu*, being. Now in the Korean ending for the ablative of motion, which is *e-sū*, we find the elided form of the locative ending followed by the syllable *sū*; but in form this *sū* is identical with the verbal participle of the verb meaning to stand. The Korean sentence *chip-e-sū kasso* may on this theory mean literally "standing at the house he went," or freely, "he went from the house." This is identical with the hypothesis advanced by Caldwell for the origin of the Dravidian ablative of motion, but whether it is defensible must, of course, be determined by further research.

The Genitive Case. The Dravidian languages are very rich in methods of expressing the possessive idea. They have developed much more than the Korean along this line. We must try to find the primitive forms so far

as possible, for these will give us the fairest basis of comparison between Korean and Dravidian.

We have already shown that the genitive endings of the Dravidian languages are identical with what are called the inflexional increments, and there are distinct traces of the same thing in Korean. The genitive endings are probably the most primitive of any, not excepting even the locative.

The sign of the genitive which may be considered not only the most distinctive but as the sole original one among the Dravidian languages is *a*. In Canarese and Tulu this is the only genitive case-ending, and though it is now seldom used in Tamil, all Tamilian grammarians place it first in the list of genitive endings. We note that in Tulu this *a* is weakened to *e* in the plural. The one genitive ending of the Korean is *eui* which is generally pronounced *e* in ordinary speech. Whether there is any connection between the Korean *eui* (*e*) and the Dravidian *a* we cannot tell, but the tendency of the Dravidian *a* to weaken to *e* would make such a theory plausible.

The personal pronouns of the Tamil form their genitive by shortening the vowel of the root. Any change in the root of a word is so exceedingly uncommon in the Turanian languages that this change demands attention. The Tamil pronoun *nī*, thou, becomes *ni*, thy, in the genitive. In the same way *nā* becomes *na*. In the Korean the first personal pronoun *nā*, I, becomes *nǎ* in the genitive, the *a* changing from the long sound as in father to the flat sound as in man. We have heretofore explained this on the theory that when the possessive ending *eui* is added to the nominative *na* the vowels coalesce and result in this flat *nǎ* (spelled *nai* by many). But investigation shows that this sort of combination occurs only among the pronouns in Korean and that the *a* of the stem is long, which would make it difficult to combine in the way we had supposed. The fact that there are some cases outside the pronouns where a similar combination is effected would hardly weaken the argument as to a similarity of method in Korean and Dravidian, for it would simply indicate that the Koreans

had made a broader application of the principle than the Dravidians.

The Locative Case. This case, as here intended, answers the question, When? just as the dative answers the question Whither? But while we find in the Dravidian languages a separate set of endings for this case, in Korean the dative does 'or both and we can say *chip-e isso*, he is in (or at) the house, or we can say *chip e kasso*, he went to the house.

The most distinctive sign of the locative in Tamil is *il*, which means literally in this place, here. There is no such Korean ending, but there may be a survival of this same particle in the expression so common among Koreans, *in chu*, which means give it here. This *in* means here, and the constant interchange of *l* and *n* would seem to make plausible the conjecture that the Korean *in* and the Dravidian *il* are at least related.

Caldwell says in a foot-note (p. 199) "I cannot forbear noticing the remarkable (though probably accidental) resemblance between the double meaning of *il* in Tamil and *in* in Latin. Each is used as a locative suffix, with the meaning of 'in' and each is used also as a particle of negation." In Korean we have the particle *an* which has precisely this double use. It means "in" or "inside," and at the same time it is the regular particle of negation. *Chip-an* means "house inside" while *kaji-an* so means "will (or does) not go." We can see no logical connection between the two ideas and yet the similarity in usage between the Korean and the Tamil is worth recording.

The Vocative Case. The most common vocative in Tamil is simply an emphatic *e* which is appended to the noun. Sometimes it is formed by substituting *a* for the formative of gender. In Telugu the vocative is formed by lengthening the final vowel of the nominative or by changing the final *u* into *a*. In Canarese it is formed by appending *a*. Caldwell adds (p. 202) "Such being the origin and character of the Dravidian signs of the vocative, it is evident that we cannot expect to find allied forms in any other family of languages." In this case

the Korean must at least be acknowledged to be allied to the Dravidian, for the vocative is formed in precisely the same way, by appending the particle *a* to the noun. *Saram-a* means "Oh man," *adal-a* means "Oh son."

Compound Case-signs. In Dravidian, as in Korean and some of the Scythian tongues, two or more case-signs may occasionally be compounded into one. In Tamil there is a combination of dative and locative to express the idea of within. In each of the Dravidian languages the ablative of motion is formed by a combination of the locative and a verbal participle. In Canarèse the locative and instrumental are compounded to give the idea of out of. We are told that "such compounds may be formed at pleasure and almost *ad infinitum*." This is a principle found nowhere in the Indo-European languages and seems to be distinctive of the Turanian tongues. We have already hinted at such combinations in Korean, but it is well to show how exactly the Korean usage follows the Dravidian. We have *euro-sū* a combination of instrumental and ablative, *eui-ge-ro-sū* a combination of locative, instrumental and ablative; and several compounds formed by adding the sign of specification to any other case ending. In both Korean and Dravidian the tendency to agglutinative concentration has led them to indicate extraordinary declensional ideas by compounding case endings. For instance the Koreans wanted to express the idea of "by way of," as in the sentence "I came by way of Fusan." They had no separate particle to express this exact idea, so they compounded the instrumental and the ablative of source and said *euro-sū* which would mean literally "by-from." Our English "by way of" also contains the instrumental idea for it means, if properly expanded, "by the use of the way of."

Many of the Scythian languages have developed curious compounds of nouns and possessive pronominal suffixes, as in the Hungarian *ur-am*, my master. *ur-ad*, thy master, *ur-a*, his master. Caldwell says that "the absence of possessive compounds of this nature in the Dravidian languages, notwithstanding their agreement

with the Scythian group in so many other points, is remarkable, and is the only point in which any structural difference of a generic type appears to exist. In all the Dravidian languages the possessive pronouns are prefixed to the nouns, never postfixed." In this the Korean is in perfect accord with the Dravidian. This is one among many indications that the Korean belongs to the southern rather than the northern branch of the Turanian family of languages.

CHAPTER V.

Adjectives.

In the formation of adjectives the Dravidian, Korean and Scythian languages agree not at all with the Indo-European tongues. In the latter the adjective must agree with its noun in gender, number and case, but in the former there is no such rule.

In all the Turanian languages adjectives are simply (1) nouns of quality or relation which acquire the meaning of adjectives merely by being prefixed to the nouns they qualify without declensional change; (2) participles of verbs; (3) nouns with the addition of participial formatives.

Nouns of quality. Many adjectives in the Dravidian dialects are nouns of quality which become adjectives by position alone without any structural change at all and without ceasing to be in themselves nouns. In Tamil the word *pon* is gold, a noun. We may say *pon aridu* meaning "gold is scarce" or we can say *pon mudu*, a gold crown. So in Korean *k'al* means knife; and we may say *k'al manso*, knife is many (there are many knives), or we can say *k'al nal*, knife-blade. We may say *keum choso*, gold is good, or we may say *keum-karakchi*, gold-ring. In Korean as in Dravidian the only change in form that can occur is one that may be demanded by phonetic laws. In Korean there are nouns of place which in English would always be prepositions. For instance *an*, *ap*, *twi*, *mit sok*, *yup*, and *u* mean re-

spectively inside, front-side, back-side, under-side, inside, and upper side, and they are all declined precisely like other nouns. They are most commonly used with the locative ending *e* whereby they become equivalent to our prepositions. Now when these are used as adjectives they are simply placed before the nouns they are intended to modify, without any change in form excepting such as is necessary from a phonetic stand-point. For instance *ap mun*, front gate, becomes *am-mun*; *an pang*, inner room, becomes *am bang*. Such changes occur also necessarily in the Dravidian. The expression *pon silei*, gold image, is pronounced *por chilei*.

Another change which occurs in both Korean and Dravidian is the occasional hardening of a consonant between the adjectival noun and its following noun. In Dravidian it is usually the final consonant of the former that is hardened while in Korean it is the initial consonant of the latter. The Tamil *nadu* means country and *varakkam* means custom, but in order to say country custom they would say *nattu varakkam*, the *tt* being the hardening of the *d*. We have also shown under the heading of Euphonic Permutation of Consonants that the Dravidian languages also frequently harden the initial surd of the following noun in such cases. Now I consider this change to be caused by the former presence of a possessive case-ending between the two nouns, which has gradually been absorbed and compensated for by the hardening of the consonant; sometimes the final consonant of the preceding noun and sometimes the initial consonant of the following noun. This is borne out by the fact that, in Tamil, *am*, an inflectional increment apparently equivalent to *in*, is often used as an adjective formative. But we have shown that this formative is the same as the possessive case-ending. In fact, Caldwell tells us that each of the inflectional increments may be used as adjective formatives. What more reasonable conjecture than that these increments which are identical in form with the possessive ending are really the same, especially since the possessive idea so perfectly conveys the adjectival.

Participles as Adjectives. The relative participles of verbs (and nouns of quality, converted into relative participles by the addition to them of participial formatives) are commonly used as adjectives in all the Turanian languages. In fact in every case where the Indo-European would use a relative clause the Turanian uses a relative participle only, and thereby he gains much in precision. He makes a single word go as far as two or three would in the Indo-European system. Except in the case already cited where a noun is used as an adjective by prefixing it to another noun, there are no adjectives in either the Korean or Dravidian outside of the participles. If we wish to say good, which is a pure adjective in English, we must say *cho-heun* in Korean, this being the present participial form of the neuter verb whose root is *cho*. If we wish to say old we must use the participle *neulg-eun*, meaning being old. But if we wish to say "the cow which is eating" we must use the words *mūngnan inūk-nan* so, or "the eating cow." The same usage obtains universally among the Dravidian tongues. But not only in the present tense is this used, but in the past as well. "The man who came" would be *on saram* or "the came man", "the having come man." The Korean and Dravidian methods are identical.

But the similarity extends much further than this. In Korean the neuter verbs have no present participle used exclusively as such. The regular active verbs have a genuine present participle in *nan*, a past participle in *eun*, and a future participle in *eul*, but the neuter verbs have only a general participle in *eun*, with some euphonic variations. But there is another past participle ending that is applicable to all verbs whether neuter or active. It is in *teun*, and while it is an adjective participle it never loses sight of its tense significance. The word *chög-eun* means small, and is used precisely as the English adjective, without any thought of time whatever, but *chök-teun* means distinctly "which was small," a quality not pertaining to the noun at the time when the noun was spoken of, but which has applied to it at some past time. Now the same thing is found conspicuously in the

Dravidian. The root *per* means great but there are two past participial endings that can be appended. If we say *per-ya* we mean simply great, without any relation to time at all, but if we say *per-utta* we mean "which was great," the idea of time being retained.

Again, both in Korean and Dravidian many adjectives are formed by the use of the future relative participle. This is nothing more than to say that both Korean and Dravidian have relative participles of the various tenses which are commonly used as adjectives. The Korean says *chug-eul-saram* meaning a man who is worthy to die, not necessarily a man who is going to die, although the ending *eul* is a distinct future participial ending. So in Tamil, *minang-um-sudar* means not stars that will shine, but stars that shine, this tense being peculiarly fitted to denote continued existence.

Any Korean or Dravidian noun may be used adjectively by appending to it a relative participle of the verb "to become," though, as Caldwell points out, such adjectives are, properly speaking, phrases and not single words. The Tamil *uyarv-ana* means literally "that which has become high," and in exactly the same way the Korean words *köji-dwen saram* means "a man who has become a beggar" or as we would say in English "beggar-man." The similarity lies in the identical use of the participle of the verb "to become." The *ana* of the Tamil and the *dwen* of the Korean are the participle of the verb become.

Comparison of Adjectives. There is such a remarkable resemblance between the Korean and Dravidian methods of indicating the degrees of comparison that we call special attention to them,

The first method mentioned by Caldwell may be taken to be the commonest method among the Dravidian languages. It consists in putting the object to be compared in the nominative case and the objective with which it is to be compared in the locative case, using the simple positive form of the adjective. For instance in Tamil *avattr-il idu nalladu* means literally "From those things this is good," meaning this is better than those. In Korean we find identically the same method, although

it is by no means the commonest one; The sentence *eun-esū keumi ch'ota* means literally "From silver gold is good," or Gold is better than silver. In each case the ablative of motion is used. Caldwell says "It is generally stated in Tamil grammars that it is the ablative of motion that is used, but I am persuaded that even when the case-sign is that of the ablative of motion the signification is purely that of the locative and that it means 'in' rather than 'from.'" I confess that I do not see the logic of this. The very idea of comparison is the stating of a distinction, a putting of the two objects *away* from each other in degree of quality. The word "from" precisely fits the logic of the situation, and when in addition to this we find that the Korean uses the pure case ending of the ablative of motion which can mean nothing but "from" there seems to be little question that the Dravidian grammarians are right in considering it an ablative ending.

Another Dravidian method is to follow the noun, which is to be compared, by the subjunctive or infinitive of the verb "to see," "to show" "or to leave." For instance, *adei-parkkilum idu nalladu* means "even though looking at that, this is good." The *adei* means "that," *parkkilum* means "though see," the *idu* means "this" and the *nalladu* means "is good." Compare this with the Korean *keu-poda i-gūt ch'ota* which means literally "That see, this is good." The *keu* is that, the *poda* is see, the *i-gūt* is this and the *ch'ota* is good. More perfect identity of idiom could not be imagined. This is by far the commonest way of comparing objects in Korean. It is remarkable that it is nowhere suggested in existing Korean grammars that this *poda* has any connection with the verb "to see," though it is identical with it in form, but is looked upon almost as a comparative case-ending. This is the only verb used in this connection in Korean, but, as we have remarked, the Dravidian may use the verb "to show" or "leave." Now it seems to me that the use of this verb to leave shows that the Dravidian looks upon comparison as a differentiation, a departure, and this helps to clinch the argument that, in the first

method above, it is the ablative of motion rather than the simple locative ending which conveys the idea of comparison. "To leave" and "from" are very closely allied logically.

Another method of comparing is to prefix to the positive form of the adjective some word signifying much or very, or by appending to the subject of the proposition a sign of emphasis or a word signifying indeed. The Tamil *id-e nalladu* means "This indeed is good." The Korean follows with the common *i-gūt cham ch'ota*, "This is indeed good," another case of identical usage.

In both Korean and Dravidian the superlative degree is generally expressed by prefixing adverbs signifying much or very, or by the very primitive plan of doubling the adjective itself. As *periya-periya* in Tamil means "great-great" or "greatest," so *ch'o'ko ch'ota* means "good and good" or "best" in Korean. If greater explicitness is desired, the same method is followed in each of these languages, namely the form illustrated in the following sentence: Among all animals the tiger is fierce. In this sentence the tiger is singled out from all the beasts as being preeminently fierce.

This will suffice for the discussion of the comparison of adjectives. In almost every particular the parallelism is complete and there are no methods mentioned in the one that are not also found in the other language.

CHAPTER IV.

The Numerals.

In the Dravidian languages the cardinal numbers appear in two shapes. The first and probably the most ancient form is that of the numeral adjective and the second is that of the numeral substantive or noun. In Tamil *oru* means "one" when used adjectively, as in the phrase "one day," but it would be *ondru* if used as a substantive in such a phrase as "take one." Each of the Dravidian cardinal numbers has this double form. In

Korean we find the same thing up to the fifth numeral. The adjective form for one is *han*, and the substantive form is *hana*. Two is represented by *tu* and *tul*, three by *se* and *set*, four by *ne* and *net*; but from this point on, the adjective and the substantive form are the same. In this respect the Dravidian has developed further than the Korean, but as the first of the numerals are always taken as the typical ones we may be safe in saying that the Korean and the Dravidian agree in this.

In both languages the adjective form of the numeral is always prefixed to the noun, but in both we find also that, instead of prefixing the adjective form, the substantive form may be postfixed. As in Tamil we may say either *nal erudu* four ox, or *erudu nangu*, ox four, so in Korean we may say *ne so*, four ox, or *so net*, ox four.

The primitive forms in both languages are those of numeral adjective, rather than those of substantives. It is easy to see in both cases that the substantives have been formed from the adjectives by some form of extension, whether euphonic or otherwise. In taking up the numerals *seriatim* we are anticipating somewhat the discussion of glossarial affinities, but the forms of the numerals are more permanent, perhaps, than any other forms excepting those of the personal pronouns and therefore they require a fuller discussion than could well be given under the head of glossary.

ONE. There seems to be some question whether the original stem of this in Tamil was *or* or *on*. Caldwell holds to the former and says that the *n* which appears in the substantive form *ondru* is simply an euphonic affectation. Others think that both *or* and *on* were derived from an original root *o* meaning to be single. The Korean word for this numeral is *han*. The aspirate is weak and gives us considerable ground for supposing that the *or* or *on* of the Tamil and the *han* of Korean were sprung from the same source. We would not force the point, but if it be conceded that the weak *h* may have been a later phonetic addition, there seems to be no great difficulty in holding that the resulting *an* and the Tamil *on* are closely related. But there is some evidence that

the basis of this Tamil numeral has survived in Korean without the aspirate. This is found in the word *o-nal* meaning today. The *nal* means day and it is natural to surmise that the *o* may be related to the Dravidian root *o* from which the numeral *or* or *on* was supposably derived. The Korean *o-nal* would then be literally one-day. This theory is still further strengthened by the fact that the numeral for one is used as the article is in English, and though it corresponds rather to the indefinite than to the definite article, yet even so it makes the Korean *o-nal* closely akin to the English word to-day, which is of course a corruption of the-day.

Two. In the Dravidian languages the numeral two has for its root *ir* or *er*, but more commonly the former. Caldwell found no analogies for this in any other language. There is none between it and the Korean *tu*, which is the sole root meaning two. But before concluding that the Korean has nothing that corresponding to the Dravidian root we should look at some compounds which show a wide departure from the ordinary Korean *tu*. For instance in the list of words meaning one-day, two-days, three-days etc., we find the list reads as follows: *ha-ru*, *it-heul*, *sa-heul*, *na-heul* etc., in which the syllables *ha*, *sa* and *na* are almost the same as the roots for one, three and four; but the *it* of the second one has no affinity with the *tu*, the ordinary word for two. There must be some reason for this. It is natural to conclude that there is an obsolete root in Korean similar to this *it* and meaning two. We have shown under phonetic laws that the letter *r* or *l* is often pronounced nearly like an English *d*, so that there would be no incongruity in supposing that the Dravidian *ir* changed to the Korean *it* through their middle point *id*. This gives no clue however to the origin of the Korean numeral *tu*, nor have we discovered in any other cognate language any similarity. It seems to be a sort of freak, such as any language occasionally develops. The logical derivation of the Dravidian *ir* is probably from the root *ir* meaning to split or divide, unless indeed those writers are right who argue that the verb "to split" would more naturally

have come from the numeral two than *vice versa*. There is no other root in Korean which would seem to be logically connected with this *tu*.

THREE. The Dravidian makes use of the root *mur* for this numeral. The final letter of this root is subject to change and it is probable that *mu* is the bare root of the numeral for three. This is as far as possible from the Korean *se*, which is the only root used for this numeral. Caldwell says there is a total absence of analogies to the Dravidian *mur* in other families of languages, but the Japanese *mutsu* must have escaped his notice. The *tsu* of this Japanese word is an addition, as is shown by the fact that it is the ending of each of the numerals. *Mu* is the root in Japanese as in Dravidian. Caldwell thinks that if this *mu* is a logically derived one it would naturally come from the root *muru*, to turn, from which comes the verbal noun *murei* a turn, a succession, a repetition. There is a remarkable similarity between this and the Korean *muri* meaning a crowd or company and we believe this to be closely allied with if not actually derived from the root *mo*, to heap up, to gather together. In some similar way it would be possible to surmise that the Korean root *se*, three, was derived originally from the root *sa* which means almost the very same as *mo*, namely to pile up. In this way a logical connection might be found between the Dravidian *mu* and the Korean *se*, each being founded on a root meaning to collect or pile up.

FOUR. In all the Dravidian languages the root for this numeral is *nal*, but the final *l* is subject to change and in the Coorg dialect is even dropped, leaving *na*. Now the Korean for four is *ne* which appears in the form of *na* in the compound *na-heul*, four days. It is a curious thing that in forming the word for forty the Korean says *ma-heun* instead of *naheun*.

FIVE. The primitive radical form of the Dravidian numeral for five is *ei* or *e*, which is modified somewhat in the various dialects. This bears no resemblance to the Korean *tat*, but the Gond dialect has *seiyān* for five, which may have some original connection with the Ko-

rean *suin*, fifty, which is not formed on the base of *tat*, five, but on some other base, although Caldwell's statement that the initial *s* of *seiyān* is an euphonic prefix, if correct, would vitiate the argument. The Korean *tat* must have some separate and special derivation. I believe it to be, as in so many other languages, taken from the fingers of the hand. The Korean method of counting is by closing the thumb in the palm of the hand for one, turning down the index finger for two, and so on until they are all closed, which indicates five. Now the common Korean root signifying to close is *tat*, the very word meaning five, and the presumption is very strong that this is the origin of the numeral. In this connection it is interesting to note what Caldwell says about the probable origin of the Dravidian root *ei*, five. "The Tamil root *ei* which is identical in form with that of the numeral for five, gives a meaning as appropriate as we could wish. An abstract noun formed from this is *eidu*, the meaning of which is close juxtaposition without touching, separation by slight intervening spaces, like growing stalks of corn or laths on a roof, or like the fingers of the hand held up and expanded for the purpose of denoting the number five by signs." If the Koreans on the other hand express five by closing all the fingers of the hand it would be only natural that they should have a different word for five, namely "shut" or *tat*.

SIX. The root of this numeral in the Dravidian languages is commonly *ar*, which seems to be derived from the root *aru* meaning to break off. The primitive idea of the Dravidian may have been that with the use of a second hand, which becomes necessary after five is passed, a new section of numerals must be begun, and the break suggested the number. But in Korean the root of this numeral is *yū* or *yūt*. Now the Korean does not use two hands in counting up to ten. Having closed all the fingers to produce five, he begins to open them again beginning with the little finger. As five was the "shutting number" so six is the "opening number" and curiously enough the root *yū* or *yūt* means to open. Of

course this use of the hand proves nothing as to the affinity of Korean with Dravidian, but we note that in many of the aboriginal tribes in Formosa the words for five and for hand are identical.

SEVEN. In the Dravidian languages the root of this numeral is *er* or *el*, the *r* and *l* being of course readily interchangeable in all this family of languages. The Korean *il* is almost identical with this, and in the word seventy, *ir-heun*, we find the very same change from *l* to *r*. The Dravidian *er* is supposed to have come from *eru*, which means to rise. Can we say that it is mere coincidence that in Korean we have the root *iru* which means the very same thing?

EIGHT. In Tamil the numeral noun for eight is *ettu*, of which the *et* is the stem. It may be that this was originally *en*, for this is the form it takes as an adjective. The Korean is *yūdal* the stem of which must be *yūd* or *yūt*, for we find that eighty is *yūd-heun*, in which the *heun* is surely a suffix. Some think that the Dravidian eight in some instances is derived from the idea of subtracting two from ten, but in any case its origin is as obscure as that of the Korean numeral. It is certain that in Korean there can have been no such idea of subtraction.

NINE. In all the Dravidian languages the numeral nine is a compound meaning one from ten. This is quite different from the Korean which has a separate and specific word for nine. It is *a-hop*, of which I believe the *a* to be the root and the *hop* an ending. This is based on two considerations; first that the word for ninety is *a-heun* in which the *heun* is identical with that ending as used in the words for sixty, seventy and eighty. In the second place there is a mountain in Korea called *Ku wūl San* which is Chinese for Nine Month Mountain, but the pure Korean name is *A-sa-dal*. Now we know that *dal* or *tal* means month and so would have expected to find *A-hop-tal* to correspond with the Chinese *Ku-wul*. This leads me to believe that in early times the *hop* did not belong to the Korean numeral for nine. Judging from the name of this mountain we might almost feel sure

that in early times the Koreans said *a-sa* for nine instead of *a-hop*.

TEN. In all the Dravidian languages the root of this word is practically the same, namely *patt* or *pad*. Scholarship is divided on the question as to the derivation of this root, Gundert urging that it was derived from the Sanscrit *pankti*, while Caldwell argues, and with complete success, that it is an old and native root. In Korean we have something quite different, as might be expected from the differences already indicated in the methods of using the fingers in counting. The Korean word for ten is *yŭl*. I believe this to be derived from the same root as the word for six. From one to five the fingers are closed in succession and from six to ten they are opened, so that arriving at ten the five fingers are all open. Six began the opening and ten completed it. It is a curious fact that the word *yŭl* is not used in forming any of the multiples of ten. No trace of it appears in the words for twenty, thirty, fifty &c. In almost all these cases the ending *heun* or some shortened form of it is used, showing a much more complicated system than that developed by the Dravidians.

Although, as we have shown, there is practical identity between the Korean and Dravidian in the names for the numerals one, four and seven, yet the differences are so great in the others and the method of their origin is so different that we must conclude that if the Koreans derived their language from that southern branch of the Turanian family the separation, from the Dravidian, of that subdivision which finally became Korean must have taken place at a very early date, when the Dravidian was still in a very primitive state. This we believe to have been at the time when the Aryans entered India and began the subjugation of these aboriginal peoples. We shall see as we proceed that there are wonderful similarities between Korean and Dravidian even after this lapse of so many thousands of years, and the similarity will be found to extend in a striking manner to the glossary, especially in the matter of ultimate roots, but it would seem that, like so many savage peoples, they developed

the arithmetical sense very slowly and that at the time of their dispersion their use of numbers was of the most primitive description. And Caldwell himself says "Where the arithmetical faculty is not strongly developed, words of number are formed slowly and irregularly and are easily changed or forgotten."

Ordinal Numbers. In both Korean and Dravidian the ordinals are formed directly and in the simplest possible manner by appending to the cardinal numbers some particle or sign. But in both languages there is one notable exception. In neither language is the word for first derived from the ordinary numeral meaning one. In Tamil and Telugu the base of the first ordinal is *mudal* a verbal noun signifying a beginning. This is connected with the postposition *mun*, before. In Korean the ordinary word for first is *ch'üt*, which seems to be a genuine adjective in that it is derived from no verb. But there is another word, *mün-jū*, which is used as an adverb and means before-hand. This is very often used in Korean where we would use first in English, especially where we would use it as an adverb. For instance where we would say "He will come first," the Korean would say *Keu-sarami mün-jū ogresso*, or literally "He before-hand will come." Now this Korean word *mün-jū* evidently bears a close resemblance to the Dravidian *mun*, and a further investigation accentuates this fact; for the Dravidian *mun* is believed to be originally derived from a root *mu* meaning age or priority. But in Korean we find a very similar root in the Korean *mug-eun* meaning old or stale, though the presence of the *g* would prevent us from pushing the comparison.

The enormous period that has elapsed since the dispersion of the pre-Aryan races of India makes the great similarity between their use of numbers and that of the Koreans all the more striking.

CHAPTER VII.

The Pronoun.

In the comparison of languages the pronoun is a most important factor. The personal pronouns are the slowest to change of any words in the language, and they survive when almost every other element of language has changed. This applies especially to the first and second personal pronouns.

The First Personal Pronoun. In the Indo-European languages we find that the base of the nominative of the personal pronouns is generally different from the base of the oblique cases but in the Korean and the Dravidian the base of the nominative and of the oblique cases is always the same. It will be found from the following sketch that the pronouns of the first and second persons are almost identical in form in Korean and in the Dravidian dialects.

In Tamil the nominative of the first personal pronoun is *nan*, in Malayalam it is *nan*, in Canarese it is *nanu*, in Telugu it is *nenu*, in Tulu it is *yan*, in Tuda *an*, in Gond *anna*, in Ku it is *anu*. The word *nan* probably best represents the original nominative and *na* the original root of this pronoun, though it is possible that very anciently even the initial *n* may have been *y* or have been lacking. We shall be fairly safe in concluding that the basic form was not far from *na*. Now in Korean the word for I is identically this same *na*, both in the nominative and in the oblique cases.

The Second Personal Pronoun. In the case of the second personal pronoun there is complete unanimity among all the Dravidian languages. In every case the root of it is *ni*. In Korean it is *nū*. We here have a different vowel sound but we find in the oblique cases of this pronoun in the Dravidian that *u* is often substituted for *i*, especially in classical language. It appears then that the Korean personal pronouns are practically identical

with those of the Dravidian languages, but it will be well to give a list of these pronouns in as many of the Turanian languages as possible in order to determine, if we can, whether Korean has greater affinity for the southern branch or for the northern branch of this great family. First let us take the Dravidian.

	FIRST PERSON	SECOND PERSON
Tamil	<i>nan</i>	<i>ni</i>
Telugu	<i>ne</i>	<i>ni</i>
Canarese	<i>na</i>	<i>nin</i>
Kota	<i>ane</i>	<i>ni</i> (infl.)
Gond	<i>anna</i>	<i>ni</i>
Coorg	<i>nan</i>	<i>nin</i>
Malayalam	<i>nyan</i>	<i>ni</i>
Tulu	<i>yan</i>	<i>ninu</i>
Tuda	<i>an</i>	<i>ni</i>
Ku	<i>anu</i>	<i>in</i>
Uraon	<i>en</i>	<i>nin</i>

Passing now to those tribes of central India which are not classified with the Dravidian dialects but seem to stand between them and the Aryan languages.

	FIRST PERSON	SECOND PERSON
Gayeti	<i>nona</i>	<i>ime</i>
Rutluk	<i>nanne</i>	<i>ima</i>
Naikedé	<i>an</i>	<i>niwa</i>
Kolami	<i>an</i>	<i>niwa</i>
Madi	<i>nan</i>	<i>mima</i>
Kuri	<i>in</i>	<i>am</i>
Kaikadi	<i>nanu</i>	<i>ninu</i>
Savara	<i>gna</i>	<i>aman</i>
Gabada	<i>nai-pa</i>	<i>no</i>
Yerukala	<i>nanu</i>	<i>ninu</i>

Passing Eastward into Burmah. —

Burman	<i>na</i>	—
Mikir	<i>ne</i>	—
Barma	—	<i>nang</i>
Tetenge	<i>ne</i>	—
Khari-naga	<i>ni</i>	—
Karen	—	<i>nah</i>

Going still further eastward to the Pacific we find:

	FIRST PERSON	SECOND PERSON
Malay	<i>ana</i>	—
Papuan	<i>nan</i>	<i>ninna</i>
Efate	—	<i>nigo</i>
Polynesian	<i>van</i>	—
Australian	—	<i>nga</i>

It must be conceded that in all these there is a very strong resemblance, and one that must help to bear out the theory that the Dravidian peoples spread eastward and southward until they were lost in the islands of the Pacific. We should note particularly the persistence of the *n* and the *a* in the first person, and the *n* and the *i* in the second person. As a rule we find greater variation in the second person than in the first, as we should expect to do.

But let us now turn to the northern branch of the Turanian family.

	FIRST PERSON	SECOND PERSON
E. Turkish	<i>men</i>	<i>sen</i>
Turkoman	<i>man</i>	
Ostiak	<i>ma</i>	<i>nen</i>
Samoiede	<i>man</i>	<i>tna</i>
Khivan	<i>mam</i>	—
W. Turkish	<i>ben</i>	—
Finnish	<i>mina</i>	<i>se</i>
Lappish	<i>mon</i>	<i>ton</i>
Votiac	<i>mon</i>	<i>ton</i>
Mongol	<i>bi</i>	<i>tchi</i>
Manchu	<i>bi</i>	<i>si</i>
Mayar	—	<i>te</i>
Calmuck	—	<i>dzi</i>

These forms present a striking similarity to each other, but as great a contrast to the Dravidian. Here we find something very similar to the Indo-European where *m* is typical of the first person and *t* or *s* of the second person. The oldest relic of the Turanian peoples is the Behistun Tablet. Unfortunately this does not give the first person, but the second person is *ni*, identical

with the Dravidian. Comparing the Korean first personal pronoun *na* and the second personal pronoun *nū* with the two sets of groups given above we will immediately classify them with the southern branch. There is hardly a single point in which Korean shows any similarity to any of the northern pronouns. Shall we conclude that the southern branch of the great Turanian family passed southward into India before the genesis of the Aryan stock, while the northern branch remained until after the origin of the Aryan and thus imbibed something of its genius? It is of course impossible to say, and yet this much we dare affirm, that it would have been almost inconceivable that the northern branch of the Turanian family should have spread north and east till it struck Korea and then have deposited there a set of personal pronouns utterly different from any to be found in northern Asia today, but in complete assonance with almost every one of the dialects and languages of the southern stock. This would not be coincidence. It would be a miracle. If this were one of a very few arguments in favor of a southern origin for the Korean language it might be dismissed, but when taken in conjunction with so many other indications it becomes very strong proof.

It is an interesting fact that in spite of the utter difference in almost every other respect between the Chinese and the Turanian, the former is possessed of personal pronouns so closely resembling these of the southern branch of that family. The Cantonese has *ngo* and the Mandarin has *wo* for the first person, while *ni* is the second person. There would seem to be some very ancient contact between these peoples, though complete disparity between the structure of the Chinese and the Dravidian languages would preclude the possibility of any close relationship. It may be that these primary words have come down from that era which marked the childhood of the human race, before even the original Chinese stock had broken off from the parent stem. It is wholly absurd for anyone to argue a Chinese origin for Korean on such a slight foundation as a few similarities like this, when the whole structure and spirit of Korean is

far more different from the Chinese than English or any other European language is.

The Reflexive Pronoun. Properly speaking there is no such thing as a third personal pronoun either in Korean or in Dravidian. In each case, what is used as a third personal pronoun is one or other of the demonstratives, which will be discussed in their turn. But it is necessary to discuss first a peculiar reflexive pronoun which is found in both these languages and which partakes so much of the character of a personal pronoun as to warrant such classification. It corresponds nearly to the Latin *sui* and may be translated by the words self or own. The range of its application is, however, rather wider than that of Latin *sui*.

The root of the reflexive pronoun in Dravidian is uniformly *ta*. In Korean it is *tyū*. This *tyū* of the Korean is pronounced almost exactly like the letters *tio* in the word "question." It will be seen from this that the Dravidian word *ta* and the Korean *tyū* are remarkably similar. But now as to their uses.

When used alone in the Dravidian it usually refers to the third person, but is also frequently used as an honorific form for the second person. In Korean, on the other hand, it is used alone only as a humble form for the first person. This is a wide difference in usage, but it will be noted that by far the more common use of this word is that of an adjective-pronoun; that is, in the possessive case in connection with a noun. In this case it is used precisely the same both in Korean and in Dravidian, and there is every reason to believe that its use as a substitute for the second person in the one case and for the first person in the other was a much later development and that it took place, perhaps, long after the separation or dispersion of the south-Turanian stock. True it is, the word in almost precisely its original phonetic power is found in Korean performing almost precisely the same function. The words *tye ch'ăk* mean "own book," and whether the own refers to the first, second or third person can be known only by the context. Its use is the same in the Dravidian.

We must call attention to another extension of the usage of this pronoun in Dravidian that is not found in Korean. This is its use as an intensive suffix to other pronouns. It is suffixed to personal or demonstrative pronouns to intensify the meaning, as *nan-tan*, I myself; *ni-tan*, you yourself; *adu-tan*, its very self; *avan-tan*, he himself. This also we believe may be called a secondary and derived usage rather than an original one. Just as in English the word *self* while radically reflective also plays the part of an intensive in such expressions as *I myself*, *you yourself*, etc.,

In both Korean and Dravidian this pronoun acquires an adverbial significance by the addition of certain formatives. The Tamil word *tan-ay* means "by oneself." Even so the Korean *tye-jullo* means "of one's own accord."

As to the origin of the word, Caldwell thinks that it must have come from some emphatic demonstrative base, and even in Tamil he finds distinct traces of the demonstrative signification of the reflexive *ta* surviving in poetic usage where one would have expected to find the demonstrative *adu*, it. This connection between the reflexive and demonstrative forms is found distinctly marked in Korean, for the form of this reflexive *tyū* is indential with that of the remote demonstrative meaning *yon* or *yonder*. In Dravidian the demonstrative use of this pronoun seems to have been gradually dropped while in Korean it has been preserved.

Pluralisation of Personal and Reflexive Pronouns. In classical Tamil the plurals of the pronouns are as follows. *Nan*, I, gives *nam*, we; *ni*, thou, gives *nir*, you; *tan*, self, gives *tam*, selves. But in the colloquial dialect a double plural has come into extensive use, formed by the addition of the sign of plurality, *gal*, which belongs as a rule to irrationals. In Korean a similar peculiarity is found. As in Dravidian, the Korean uses a different plural sign for these pronouns, but customarily adds the regular plural sign, thus making a double plural. For instance *nū* means thou and *nū-heui* means ye, *tyū* means self and *tyū-heui* means selves; the *heui* in

each case being a plural termination used solely with the personal and reflexive pronouns; but, as in Dravidian, the common plural termination is also added as a general rule, so that we have *nū-heui-teul* and *tyū-heui-teul*, in which the *heui* and the *teul* are both plural terminations. We make no mention of the first person plural of the pronoun, because the Korean has this peculiarity that the root of the first person singular is quite different from that of the plural. The first person singular is *na* but the plural is *uri*, which I believe to be contracted from *ur-heui*. As to the origin of this *ur* we are quite in the dark. But with this aside the formation is similar to that of the second person; that is, the plural ending *heui* is followed, as in the other cases, by the regular plural ending *teul*, giving us *uri-teul* for the first person plural.

CHAPTER VIII.

Demonstrative and Interrogative Pronouns.

Demonstrative bases. The remarkable similarity between the personal pronouns in Korean and Dravidian extends to the demonstratives and the interrogatives, and is exhibited both in the phonetic structure and in the method of combination and usage. As we have said, both these languages are destitute of pronouns of the third person and use instead demonstratives signifying "this" or "that" with masculine, feminine and neuter terminations or words signifying male, female or neuter. In both languages "he" means "that man," "she" means "that woman" and "it" means "that thing." In the Dravidian languages the words meaning man and woman when used in this connection, have gradually lost the definiteness of their original meaning and have shrunk to the position of mere masculine and feminine terminations, while the Korean has held to the definite terms for man, woman and thing. Caldwell calls this shrinking of the words man, woman and thing

an Aryanistic device for fusing "that man," that woman" and "that thing" into single euphonious words. But he adds "The signification of man and woman still shines through in the masculine and feminine terminations."

The fact that stands out in plain relief in both the Korean and the Dravidian demonstratives is that there are three roots signifying proximate, medial and remote position. There is something like this in English, in the three words "this", "that" and "yon." The first relates to something near the speaker, the second to something near the hearer (or at least not near the speaker) and the third to something distant from both speaker and hearer. In both Korean and Dravidian, a whole system of demonstrative pronouns, pronominal adjectives and demonstrative adverbs is built upon these three roots.

What we call the proximate root is identical in Korean and Dravidian and consists of the single letter *i*. It is in this proximate root that we would expect to find a phonetic similarity, rather than in the others; just as in the case of personal pronouns, it is in the first person that phonetic change is the slowest. In Dravidian the medial demonstrative root is *u* and in Korean it is *keu*. The remote demonstrative in Dravidian is *a* and in Korean it is *tyu*.

In considering the proximate, medial and remote demonstratives, it should be noted that it is not always physical proximity or remoteness that is connoted, especially in the case of the medial. The proximate is subjective and the medial is objective. We say in English "That is true," in which we cannot locate the thing physically, but only look at it as an objective concept. In the same way the Korean *keu-saram* does not mean "that man," as if one were pointing a finger at him, but it means the man who is the present subject of conversation and being looked upon by the mind's eye. In other words it means exactly "he."

Interrogative bases. It is true of both the languages under discussion that there are two classes of interrogative bases. In each there is first the regular interrogative base used adjectively, and second a base which Cald-

well calls a "syntactic interrogative," though its use corresponds closely with the regular adjective form. In both languages this second base may also be used as a separate word or substantive.

The most common interrogative stem in the Dravidian is *e*. On this base are formed a great number of interrogatives giving different shades of meaning. The Korean base corresponding to this is *ū*. This letter is sounded, as we have shown, like *u* in the word "but," although to be more exact it might be described as the sound of *ea* in the word "earnest." Phonetically it is but slightly removed from the vowel *e*, and French students of Korean invariably transliterate by that vowel. On this base the Koreans build up a system of interrogatives as perfect as that developed by the Dravidians, and in a manner identically the same. Not only do they make interrogative pronouns on this base but interrogative adjectives and adverbs as well. The same is true of the demonstrative bases. They are used in making demonstrative adverbs and even verbs. The system is a complete and intricate one, but we shall attempt to explain it in enough detail to show the marvelous similarity of method adopted by the Koreans and the Dravidians.

The Korean also has a second interrogative base in *mu* (*nu* in the first and second persons) which though less broad in its application than the other base, corresponds very closely with the use of the Dravidian *ya*, even in its peculiar use as an independent word.

In order to exhibit most clearly the similarity in structure and in method of use of the Korean and the Dravidian demonstratives it will be well to place them in tabulated order. For this purpose we shall use the abbreviations K. and D. for these two languages respectively, and Com. for common gender (masculine and feminine).

	PROXIMATE	MEDIAL	REMOTE
D.	<i>i</i> (this)	<i>u</i> (this)	<i>a</i> (yon)
K.	<i>i</i> "	<i>keu</i> "	<i>tyū</i> "
D.	<i>i-van</i> (this man)	<i>u-van</i> (that man)	<i>a-van</i> (yon man)
K.	<i>i-saram</i> "	<i>keu-saram</i> "	<i>tyū-saram</i> "

- | | | | |
|----|--------------------------|--------------------------|-------------------------|
| D. | <i>i-val</i> | <i>u-val</i> | <i>a-val</i> |
| | (this woman) | (that woman) | (yonder woman) |
| K. | <i>i-saram</i> | <i>keu-saram</i> | <i>tyü-saram</i> |
| | (this woman) | (that woman) | (yonder woman) |
| D. | <i>i-du</i> (this thing) | <i>u-du</i> (that thing) | <i>a-du</i> (yon thing) |
| K. | <i>i-güt</i> “ | <i>keu-güt</i> “ | <i>tyü-güt</i> “ |

In both languages alike, these demonstratives may be prefixed to any noun, and when so prefixed they are indeclinable. But we have other adjective demonstratives founded on these same stems, as is seen in the following table.

- | | | |
|----|---------------------------|---|
| D. | <i>i-tti</i> (like this) | <i>a-tti</i> (like yonder) |
| K. | <i>i-rün</i> “ | <i>keu-rün</i> (like that) <i>tyü rün</i> “ |
| D. | <i>i-nitu</i> (this much) | <i>a-nitu</i> (that much) |
| D. | <i>i-mankeum</i> “ | <i>keu-mankeum</i> <i>tyü-mankeum</i> “ |

There is also a full line of demonstrative adverbs formed from these same roots.

- | | | |
|----|-----------------------------|---|
| D. | <i>i-ngu</i> (here) | <i>a-ngu</i> (yonder) |
| K. | <i>yü-geui</i> “ | <i>kü-geui</i> (here) <i>tyü-geui</i> “ |
| D. | <i>i-nchi</i> (hither) | <i>a-nchi</i> (thither) |
| K. | <i>i-ri</i> “ | <i>tyü-ri</i> “ |
| D. | <i>i-ncha</i> (in this way) | <i>a-ncha</i> (in that way) |
| K. | <i>i-rük'i</i> “ | <i>keu-rük'i</i> so) <i>tyu-rük'i</i> “ |
| D. | <i>i-danim</i> (now) | <i>ta-danim</i> (then) |
| K. | <i>i ttä</i> “ | <i>keu-tta</i> (then) <i>tyü-ttä</i> “ |

In examining these forms it will be observed that in the Dravidian there are several cases in which the medial is wanting, but this also occurs in some of the Korean, so the significance of this discrepancy is much lessened. One cannot but be struck with the marked similarity in method in the two languages. It amounts to practical identity. In the proximate list we find the same root in all but one case, the Korean word for “here.”

There is little or no similarity between the Dravidian and any other of the Turanian languages, although in a few of them there are forms which might be imagined to have some resemblance. For instance the Finnish *tuo*, “that” and *tama*, “this,” the Ostiak *toma*, “that,” *tema*, “this.” Caldwell finds considerable likeness between the Dravidian and Indo-European demonstrative bases. For

instance the Sanscrit *i-dam*, "this," *a-das*, "this," the Old Persian *i-da*, "hither." But he adds "Instead of supposing the Dravidian dialects to have borrowed their demonstratives from Sanscrit it is more reasonable to suppose that the Dravidian demonstrative bases retain the primeval form from which the demonstratives of the Sanscrit and of all the other Indo-European tongues have been derived." Caldwell reckoned without the Korean when he said "In no other language or family of languages in the world shall we find an equally beautiful and philosophical regularity in the set of remote, proximate and intermediate demonstratives." The very same thing obtains in Korean, as the list given above abundantly shows. We shall find that an equal regularity marks the arrangement of the interrogatives.

The Interrogative Pronouns. We have already intimated that there are two interrogative bases in Korean, as in the Dravidian. The Korean bases are *ũ* and *mu* (*nu*). The Dravidian are *c* and *ya*. It is the former of these in both languages that is used by far the most, and the close similarity in form is a significant feature. In each case the crude base *ũ* may be translated "what?" and to this base are added whatever endings are necessary to produce the different variations.

- D. *e-van* (what man? who?)
 K. *ũ-na-saram* "
 D. *e-val* (what woman? who?)
 K. *ũ-na-saram* " "
 D. *e-du* (what things? what?)
 K. *ũ-na-gtũ* " "
 D. *a-la* (why?)
 K. *ũ(t)-ch'i* "
 D. *e (v)-vidam* (how?)
 K. *(t)-tũk'i* "
 D. *e-nda* (which?)
 K. *ũ(t)-tũn* "
 D. *e-tti* (what like?)
 K. *ũ(t)-tahan* "
 D. *e-nitũ* (how much?)
 K. *ũ-lma* "

D. *e-ngu* (where?)

K *ũ-di* “

The use of *ya* in the Dravidian and of *nu* or *nu* in the Korean is much more restricted, and the restriction is almost the same in both cases. The high Tamil *ya*, like the Korean *nu* and *mu* is not only prefixed abjectively to substantives but is used separately as a pronoun. The Korean *nu* and *mu* form no adjective or adverb interrogatives, and the Dravidian *ya* only forms one.

In both Korean and Dravidian there is another form used in questions, when it is asked “Is there? or “Are there?” This will necessarily be discussed under interrogative forms of verbs but the ending used in Dravidian is the same in form as the *ya* just cited, so we mention it here. This kind of interrogation is effected in Dravidian by suffixing *a* or *o* to the noun, verb or sentence, and it is done without any syntactic change whatever. In Korean the very same is true, but the ending used is either *ya* or *yo*. How closely these correspond with *a* and *o* of Dravidian needs no emphasizing. The identity in use is illustrated by the Tamil *avan tandan* “he gave,” *avan tandan-a* “did he give?” as compared with the Korean *keu-saraini chuŭtta*, “he gave” and *keu saraini chuŭtnanya* “did he give,” Tamil *adu ur-a* “is that a village?” literally “that, village is?” as compared with the Korean *keu gŭt maeulin-ya* literally “that, village is?” This interrogative is never prefixed, in either language, to nouns or pronouns, nor is it used adjectivally; but it is always post-fixed, like an audible note of interrogation. In Malayalam the *a* is not used for interrogation but *o* is used instead. Thus Korean sometimes uses *yo* instead of *ya*, the former being the more polite of the two; but in this connection we notice a peculiarity which distinguishes both the Korean and the Dravidian. Caldwell says that *o* is occasionally used in Tamil as a simple interrogative, but its special and distinctive use is as a particle of doubt. Thus while *avan-a* means “is it he?” *avan-o* means “can it be he?” The same letter, *o*, is used in Korean precisely the same way but usually with the addition of the

letter *k*. The Korean says *saram-in-ko* meaning "Now is that really a man or am I mistaken?" That the letter *k* is not intrinsic to the idea of doubt in these cases is seen from the use of the *o* with the letter *n* in precisely similar cases. For instance we have *ka-gen-no* which means "I wonder whether he will go after all?" The idea is identical with that of the Dravidian particle *o* in such cases. But in the Korean as in the Dravidian it would seem to be only a weakened form of the *a* in which by usage the interrogative has been softened into an expression of doubt. In Tamil this *o* is often annexed even to interrogative pronouns directly. So *evan-o* means "I wonder who it can be?" and the Korean *nugun-ko* means precisely the same thing.

Caldwell says that this use of *a* or *o* as an interrogative suffix has no counterpart in any Scythian tongue. This makes the practical identity with the Korean usage all the more significant.

Distributive Pronouns. These are formed in Korean as in the Dravidian by a simple addition of a particle to the interrogative stem. The same is true of English. We simply add "ever" to the interrogative and make "who-ever," "what-ever" etc. So the Dravidian gives *evan* for "who" but *evanum* for "who-ever" and the Korean gives *nugu* for "who" and *nugu-tünji* for "who-ever." There is this much difference in usage that whereas the Dravidian adds to the interrogative root the particle *um* which is a mere conjunctive particle, the ending used in Korean, *tünji*, is appended to verbs as well and is the generic sign of indefiniteness. So that while the Dravidian *evan-um* would mean literally "who-and" the Korean *nugu-tünji* means literally "who-whether" or perhaps better still, "any-who." It will be seen that the Dravidian here is the same as the Latin, in which *ubi-que* means literally "where-and."

Relative Pronouns. Such a heading as this is quite unnecessary except to emphasize the fact that neither in the Korean nor in the Dravidian is there any such thing as a relative pronoun. It is a thing quite unknown to the entire Turanian family of languages, which, be it said

to their credit, manage this matter rather better than the Indo-European languages do. The whole subject of the relative idea will come up under the head of relative participles, where it will be shown how perfect is the Turanian grammatical mechanism to express these more complicated notions.

CHAPTER IX.

The Verb.

Caldwell says that a large proportion of Dravidian roots are used indiscriminately either as verbs or as nouns, but it depends upon circumstances whether any particular root is so used. This is generally true in English. We use the words *table*, *ground*, *nose*, *hand*, *pen*, *bottle*, *book*, *paint*, *color*, *paper* and a thousand others as true verbs. But at the same time it must be recognised that the verbal idea is a derived one and not the basic one. To *bottle* means to put into a bottle, and the verb is an usurpation, if we may say so, of the noun for the mere sake of brevity. This seems to me to be a refinement of language that has been evolved gradually, for at first the root must have been either verbal or substantive. If verbal the substantive was derived and if substantive the verb was derived. In Korean we find few roots that are used either verbally or substantively. Of course there are very many verbal nouns and there are many verbs made by joining a pure noun to a verbal inflection but in the sense that a stem is either verbal or substantive there is no such thing. In Korean *sang-gak* means "thought" and by adding the verb *handa* we have the compound verb *sang-gak handa* which means literally "to make thought" or "to do thought," that is "to think." Thousands of verbs are made in Korean by adding the verb *handa* to a noun, but the substantive part and the verbal part are kept distinct. This is a very singular phenomenon. These nouns to which the verb *handa* is added are almost entirely abstract nouns and many of them are never used separately at all. The one just cited

may be used separately, but take the verb *pun-handa* which means "to do anger," that is, "to be angry." Here the word *pun* is never used alone as a noun, but only in conjunction with the *handa*. The same is true of *chūp handa* "to graft," *chūl handa* "to do obeisance," and a long list of others. One would expect these abstract nouns to be derived from verbs but they are not.

The structure of the Korean, as of the Dravidian verb, is strictly agglutinative. As Caldwell says, "The particles which express the ideas of mode, tense, transition, causation, and negation are annexed or agglutinated to the root in so regular a series and by so quiet a process that generally no change whatever is effected either in the root or in any of the suffixed particles." This language applies as well to Korean as to Dravidian.

But there is one form of the Dravidian and the Korean verb that is not formed by agglutination. The crude theme of the verb is used as the second person singular of the imperative. The Korean, to be sure, has an imperative ending, to be used to low people, but the crude stem is almost always used even in such cases. In Tamil *idei adi* means "strike this", the *adi* being the stem of the verb "to strike." So in Korean the words *nal chu* mean "give to me," the *chu* being the stem of the verb "to give." So *na ka* means "go away," *iri o* means "come here," *nal po* means "look at me," *ka, o* and *po* being the stems.

As the noun has really but one declension, so the verb, whether Dravidian or Korean, has but one conjugation. In both these languages there have been attempts to prove that there is more than a single conjugation, but the classification can be shown to be based on such trivial distinctions that they cannot be said to constitute different conjugations. The structure of the verb and of its different suffixes remain the same, with only such differences as euphony may demand.

Caldwell says of the Dravidian verb "Such is the simplicity of its structure that the only modes it has are the indicative, infinitive, imperative and negative and its only three tenses are the present, the past and the inde-

finite future." This is said in regard to the Tamil, Telugu and Canarese dialects, but he adds in regard to others that "Tulu and Gond verbs possess more complicated systems of conjugational forms, almost rivalling those of the Turkish in abundance." And as an explanation of the contrast between the severe simplicity of the Tamil and the luxuriousness of the Gond verb he says "I conclude that we have here a proof, not of the superiority of the Gond mind over the Tamilian, but simply of the greater antiquity of Tamilian literary culture. The development of the conjugational system of Tamil seems to have been arrested at a very early period by the invention of writing, by which the verbal forms existing at the time were fossilised, whilst the uncultured Gonds, and their still ruder neighbors the Kols, went on age after age as before, compounding with their verbs auxiliary words of time and relation and fusing them into conjugational forms by rapid and careless pronunciation, without allowing any record of the various steps to survive." We quote thus at length because the Korean verb has done just what Caldwell surmises the Gond verb did and probably for the same reason. There is no evidence to show that the Korean language was crystallised into any sort of literary form until at least six centuries after the beginning of our era and even then it was done in such a peculiar way that it would scarcely form a bar to the process of phonetic decay or of declensional or conjugational variation. The Korean verb has a great variety of tenses and of modes. The following ideas are clearly expressed in Korean by simply using agglutinative suffixes with the verb stems. How far this departs from the Tamil simplicity and conforms to the diversity of the Gond will be seen at a glance. We can express the ideas of affirmation, negation, doubt, perplexity, hypothesis, desire, expostulation, exhortation, condition, command, entreaty, concession, promise, duration, purpose, causation, iteration, product, limit, and a number of others of lesser importance. In fact the Korean verb represents perhaps the limit to which language has gone in expressing verbal relationships by the use of

agglutinative suffixes. In Korea written language differs widely from the vernacular. There are many endings in each that are not to be found in the other, and so the reduction of Korean to writing and the evolution of a literature put no stop to the multiplication of conjugational differentiae. The fact that the Gond dialect of the Dravidian and the Korean developed so broadly under similar conditions of illiteracy shows that there was some native similarity in the two. The genius of the two was the same.

If it is true that the Korean came, by however devious a way, from the Indian branch of the Turanian language, the above facts show that the separation must have been at a very early date, even as we would have expected. Our first notice of the southern settlers on the coast of Korea date from about 200 B. C. and what we can discover of them would indicate that their arrival there was at that time comparatively recent. We might possibly say that in all probability this southern stock entered Korea no earlier than the fifth or sixth century before Christ. If we place the Aryan invasion of India at approximately 2,000 B. C. there would be no chronological difficulty in the way of the supposition that these southern Koreans formed the last distant wave of the dispersion of the ancient Turanian inhabitants of India which followed that invasion.

We have already shown that the Korean noun compounds readily with the verb. The same thing is true of the Dravidian but neither of them ever compounds a verb with a preposition. This is true of all the Turanian languages and forms one of the marked points of divergence from the structure of the Indo-European languages, in which an inexhaustible variety of shades of meaning is secured by the facility with which they compound the verb and preposition. Korean and Dravidian are identical in the way in which they seem to show exceptions to this rule, but in each case a close examination shows that the method of combination is radically different from that adopted by the Indo-European languages. In Korean and Dravidian these are not compounds of

prepositions and verbs but of nouns and verbs. Indeed, so far as Korean is concerned, the ideas which we express by prepositions are expressed by nouns with case endings. Witness the following really remarkable similarity between the Korean and Dravidian methods. Dr Caldwell says of the Dravidian, and we may say the very same of Korean, that the verb acquires new shades of meaning and an increase or diminution in the intensity of its signification, not by prefixing or combining prepositions but by means of auxiliary gerunds or verbal participles and infinitives, parts of speech which in these languages have adverbial force. In Tamil *surri-ponan* means "he went around" but it derives this meaning from the literal rendering, "rounding he went." The Korean is the exact counterpart of this, *tora-kanda*, in which the *tora* is a verbal participle of the verb meaning to encircle and the *kanda* means to go. The Tamil *tora-kudittan* is, literally, so-as-to-get-down he leaped," meaning "he leaped down." So the Korean *naryŭ-dwindā* means "descending leaps," or freely, "he leaps down." A great variety of such combinations occur both in Korean and Dravidian and they form a very important step in the cumulative argument in favor of a generic similarity between the two languages.

CHAPTER X

Classification of Verbs.

Transitives and Intransitives. We here come to some of the most vital points in our comparison of the Korean and Dravidian languages, for in both of them the verb plays a far more important rôle than in the Indo-European languages. The reason of this is that the agglutinative system gives such unlimited opportunity to roll into a single word a wealth of meaning that no Indo-European verb could express. Caldwell tells us that Dravidian grammarians divide all verbs into transitives and intransitives, or literally, outward-action words and self-action words. He adds that these classes corre-

spond more closely to the transitive and reflective voices of the Sanscrit than to the active and passive voices of the other Indo-European tongues. We shall see presently that these words describe the Korean verb with great precision.

In large numbers of Dravidian and Korean verbs there is no difference in form between transitives and intransitives. Caldwell says that in a still larger number of cases however there is some difference in form, though the conjugation is always the same. But judging from the manner in which Caldwell develops this subject it seems that the differences occur only in case an intransitive verb is so modified as to become transitive; for he goes on to illustrate fully the "three modes in which intransitives are converted into transitives."

The three methods by which the Dravidian languages change intransitives into transitives are (1) by hardening and doubling the consonant of the appended formative, (2) by hardening the initial consonant of the signs of tense, (3) by adding a particle of transition to the stem. There is a fourth way sometimes used in Tamil, namely by hardening a final consonant of a stem. Now when we turn to Korean we find that the sole method of effecting this important change is to add to the stem the particle *i* in all modes and tenses. What Caldwell says of these transitives describes the Korean so precisely that a direct quotation could not be bettered. He says, "They are often called causals, and they are as well entitled to that name as many causal verbs in the Indo-European languages, but as there is a class of Dravidian verbs which are distinctively causal, it will contribute to perspicuity to regard the verbs of which we are now speaking as simply transitives, and to reserve the name of causal verbs for the other class." The Korean verbs which are made transitive by the addition of the particle *i* have also been called causals and they might well be so regarded logically, but we have in Korean a regular causative of another sort which makes Caldwell's objection as applicable to Korean as to the Dravidian. The question now arises what connection or

what similarity is there between the Dravidian and the Korean method? We note that in the third method given by Caldwell we have precisely the same thing as in Korean, namely the addition of a particle of transition. As for the first two methods, in which it is effected by a hardening of the consonant of the formative or of the tense sign, we are bound to inquire how such a hardening took place. It was not done mechanically. It was a natural development of the vernacular, and there can hardly be any question that it resulted from the gradual decay and absorption of a specific particle which finally assumed the form of a mere hardening of the consonant. Note that the hardening is sometimes of a following consonant but also sometimes of a final consonant of the stem. This adds weight to the supposition that the hardening is simply a compensation for the dropping of an original particle of transition. In order to have become so absorbed this particle must have been a weak one, probably a simple vowel. Caldwell says nothing of such an origin but nevertheless it is a very reasonable supposition, and we find in Korean something that makes it all the more reasonable. We saw in our discussion of the phonetic laws of Korean that in compound nouns in which the first noun stands in a genitive relation to the second one the initial consonant of the second one is often hardened and doubled exactly as the Dravidian formative or tense sign hardens its initial consonant in making a transitive. In Korean this hardening is plainly the compensation for the dropping of the genitive case sign from the first noun of the compound. That sign is the weak vowel or diphthong *eui*. This of course proves nothing, but it leaves the strong presumption that under similar conditions a like circumstance has occurred in the doubling of the consonant in Dravidian. The very use of a special particle of transition in one of the Dravidian methods of changing from intransitive to transitive shows that the fundamental principle of the change is the use of a particle. This also helps to confirm us in the belief that the hardening of the consonant is merely the trace of a former par-

ticle. If this course of reasoning is sound it becomes plain that there is a very real and vital similarity between the Dravidian and Korean methods. In Korean the particle has not been absorbed as it has in the Dravidian, but this furnishes no objection to the theory. The following words give a comparison of the methods of the two languages.

(D) *perugu* to increase (intr.); *peru-kku* to increase (tr.)

(K) *nok-ta*, to melt (int.); *nok-i-ta* to melt (tr.)

(D) *po-gu* to go; *po-kku*, to drive away.

(K) *chuk-ta* to die; *chuk-i-ta*, to kill.

(D) *tiru-ndu*, to be correct; *tiru-ttu*, to correct.

(K) *nop-ta*, to be high; *nop-hi-ta*, to elevate.

(D) *me-mbu*, to eat; *me-ppu*, to feed.

(K) *mūk-ta*, to eat; *mūk-i-ta*, to feed.

(D) *ser-gir-en*, I join (e. g. a society); *ser-kkir-en*, I join.

(K) *mal-ta* (euph. *ma-reu-ta*,) to be dry; (e. g. hands)
(*mal-yi-ta*, to dry.

(D) *od-u*, to run; *ott-u*, to drive away.

(K) *tol-ta*, to turn around; *tol-i-ta*, to twist (tr.)

(D) *padu*, to lie down; *padu-ttu*, to lay down.

(K) *po-ta*, to see; *po-i-ta*, to appear.

These examples are enough to show the generic similarity between the two methods. The differences are merely those of detail and not of essential quality.

Causal verbs. We have already mentioned the fact that both the Dravidian and Korean possess genuine causal verbs. In many cases they seem to have the same signification as the transitives described in the foregoing section, but the genuine causal differs from the ordinary transitive in this, that it usually implies that the act is caused not directly by the subject of the verb but through an intermediary or agent. The difference between the transitive and the causal is well illustrated, both for Korean and Dravidian, by taking such a verb as "to send," which is the transitive of "to go," and changing it to a causal, namely "to cause to send." This idea can be expressed in the Indo-European languages only by a circumlocation such as we have here given, but the Turanian languages accomplish this result by the simple use

of a particle attached to the verb. In Korean the word *chuk-ta* means to die; it is made transitive by adding the particle *i*, *chuk-i-ta*, "to kill," which is the same as "to cause to die." This in turn can be modified by the addition of the causative particle *ke*, forming the word *chuk-i-ke* which means literally "to cause to cause to die" or in other words "to cause to kill." In like manner the Tamil *anuppu*, meaning "to cause to go" or "to send" is made causal by the addition of the particle *vi*, *anuppuvi*, "to cause to send."

It must be acknowledged that the Dravidian has developed this causal form more completely than the Korean, for while in the former there is nothing necessary except to add the causal particle to the transitive stem and append the modal ending, the Korean language generally makes use of the common auxiliary verb *han-da* in these cases. The word "to cause to kill" will be *chuk-i-ke handa*, in which the *chuk-i-ke* has a sort of adverbial force, as much as to say "to do a cause-to-killing," but that this does not vitiate the argument is seen from the fact that the causal idea is all in the *chuk-i-ke* and none of it in the *han-da*; and in fact the work *chuk-i-ke* can be used alone as an imperative, though it would come under the head of what we call "half talk" in Korean. But even in this peculiarity the Dravidian shares, for Caldwell tells us that it sometimes resorts to the use of an auxiliary verb signifying to do or to make. This is done, however, chiefly in connection with Sanscrit derivatives.

The Dravidian dialects usually require that the causals be formed from transitive verbs only, but sometimes this law is neglected. The sign of causation is sometimes added directly to neuter or intransitive verbs. In Korean this is carried still further and the causal particle is as commonly used with neuter verbs as with transitive ones. But there is a difference in the meaning in Korean between the causative in *ke* and that in *i*. *Chuk-i-ta* means "to kill," without any reservation at all. It is a personal act. *Chuk-ke handa*, on the other hand means "to cause to die," but the inference is clear that

though the subject of the verb is the one to blame for the crime, he does not perform it with his own hand but through an intermediary or agent. In Dravidian the words *nala-ttu* and *nada-ppi*, which are the transitive and the causal of the same verb stem, seem to have precisely the same meaning "to guide." There is evidently a certain difference between "to feed" and "to cause to eat." This difference, whatever it is, the Korean preserves.

We have seen that the sole causal particle in Korean is *ke*. We must now compare this with the particles used in the Dravidian and note whatever similarity there may be, if any. In Tamil we find the particles *vi*, *bi* and *ppi*; in Telugu *inchu* and *pinchu*; in Canarese *ichu*. Caldwell makes a strenuous effort to prove that in each case it is the *i* alone which forms the final base of this causal particle. The variety of consonants (*v*, *b* and *p*) used with this vowel would cause the student to inquire whether they might not be eliminated by some means. Caldwell shows that neither the *b* of *bi* nor the *pp* of *ppi* could have been inserted simply for euphony. The *v* of *vi* might possibly be euphonic but this is not likely in view of the fact that it persists even in cases where it could not possibly be for euphonic purposes. Caldwell goes on to say that the future tense signs seem to throw some light on the matter. "It is remarkable, at all events, that those three signs of the future are identical with the formatives of the causal particles, in what way soever this identity may be accounted for; so that if we know which one of these signs is used by any verb in the formation of its future tense, we know at once how the causal of the same verb is formed." I deem it little short of marvelous that Caldwell did not recognise the fact that the causal idea is very closely related to the idea of futurity. This is why we find the *v*, *b* and *pp* in the causal particles, because they were derived directly from the future idea and difficulty arising from the diversity has nothing to do with the causal, since that depends directly upon the future ending. It is true that the vowel of the causal particle is *i* in every

case but we cannot for that reason argue that the consonant is not intrinsic to the particle. It will be noted that Caldwell gives no explanation of the presence of these consonants in the causal ending beyond referring to the fact that they are found also in the future endings. He might well have gone one step further and shown that in all probability the future ending gave rise to the causal. The reason why we feel so sure of this is shown by a reference to the Korean. The causal particle *ke* is identical with the one and only future tense ending. In fact, I can affirm with good show of reason that the Korean causal is formed simply by the use of the future verbal participle in *ke*. When we compare the Dravidian *varu-v-en*, I will come, with *varu-v-i*, to cause to come; *edu-pp-en*, "I will take up," with *edu-pp-i*, to take up; *padi-pp-en*, I will learn, with *padi-ppi*, to teach; *var-v-en*, I will flourish, with *var-v-i*, to cause to flourish; *kan-b-en*, I will see, with *kan-b-i*, to show—when we compare these, I say, it will be a very rash man who will deny that the probability, that the causal was derived from the future is as ninety-nine out of a hundred. The unquestionable fact that it is so derived in Korean shows that the method is native to the Turanian family and helps to settle the question as to the Dravidian. It is apparent that the future ending must have been developed before the causative, and if so the logic of the situation leads us to the same conclusion, that the causal was a natural development of the future.

The Passive Voice. Most of the Turanian languages form a passive voice by means of suffixes, but Korean and Dravidian agree in this, that they are entirely destitute of a passive voice, properly so called, nor is there the least evidence that they ever had one. Neither of them have any means for expressing passivity by any inflectional change. And yet they both have other means for expressing the idea of passivity

One method adopted by the Dravidian to express the passive idea is to use a neuter or intransitive form of the verb. The expression "It is broken" would be expressed by the preterite tense of the neuter verb *udei*, and it

might be literally translated "It has come into a broken condition." The Korean possesses practically the same method, for it uses the preterite tense of the verb in the same neuter way. It says *gajütta* "it broke," just as we do in English. It could not break itself, and so the expression is logically a passive. In both Korean and Dravidian the passivity of the expression may be increased by adding the name of the agent with the instrumental case ending. The Dravidian *ennal udeinda-du* means "it came into a broken condition through me," and even so the Korean *na-hante gajusso* means "it broke by me."

A second method commonly employed by the Dravidian in expressing the idea of our passive is to use the preterite verbal participle of any neuter or active verb, followed by the preterite of the verbs to become, to be, to go or to end. For instance *mugind ayittru* means literally "having finished it is become." In like manner *katti ayittru* means "having built is become." Turning now to the Korean we find a method precisely like this. The words *chiü jütta* mean "having built has become." *munü-jütta* means "having demolished is become." In each language the preterite verbal participle is followed by the verb meaning to become.

Verbal nouns, especially the verbal noun in *dal* or *al*, are often used in Tamil instead of the preterite participle in such cases as the ones mentioned above. Instead of saying *seyd' ayittru*, "having done it is become" the words *seydal ayittru* may be used. This means "the doing of it is become." In identically the same way the Korean makes use of the verbal noun for the same purpose. If the Korean wishes to say that he is persecuted he will say *pit-pak-hami isso* or literally persecution is (to me), in which the *pit-pak-hami* is the verbal noun of *pit-pak-hata*.

In this connection we find one of the most unique and striking similarities between the Korean and Dravidian. In both of them the relative participles are often used in a passive sense without the use of any sign of passivity whatever. In other words the active par-

ticiples are used for both voices. Note the following examples.

(D) *erudina suvadi*, "written book," but literally "book that wrote."

(K) *seun ch'ǎk*, "written book," lit. "book that wrote."

(D) *sonna-du podum*, "what was said is sufficient," but lit. "that which said is sufficient."

(K) *han-mal doégetta*, "what has been said will do,"

(D) *Iyesu enbavar*, "who is called Jesus," but literally "Jesus who speaks."

(K) *Yesu iran*, "who is called Jesus," but lit. "Jesus who said." In Korean, as in Dravidian, such cases could be cited *ad nauseam*. If the Korean wants to say that the knife with which he made the kite is sharp he would cast it in this shape, "I kite made knife is sharp." Singular as it may seem the expression "rat killed cat" means "the cat which killed the rat," and "money gave man" means "the man who gave money."

Another way in which the Dravidian brings out the passive idea by a circumlocution is in the use of the verb "to eat." Not only is this true of the Korean but the further specification applies with equal force to each, namely that this verb, in this connection, is used only with nouns and is never compounded with any part of the verb.

(D) *Adi undan*, "he was beaten," is literally "he ate a being."

(K) *Yok mǔgǔtta*, "he was insulted," lit. "he ate insult."

Still another way of expressing the passive idea in both Korean and Dravidian is by the use of the verb meaning to suffer or receive.

(D) *Kolla pallan*, "he suffered a killing."

(K) *Hǎ-reul patta*, "to receive injury."

(D) *Vetka pattan*, "he suffered shame."

(K) *Karichim-eul patta*, "to receive teaching."

In summing up the matter of substitutes for the passive voice in these two languages, we will note that there are a number of methods and that all these are identically the same in both. No method is found in one

that is not also found in the other. It is hardly necessary for me to dilate upon this remarkable fact. The fact itself speaks louder than any comment could.

The Middle Voice. Neither in Korean nor in the Dravidian do we find any such thing as a middle voice, properly so called. The reflexive force of the middle voice is, however, brought out in each of them constructively by the use of an auxiliary verb. In Tamil this verb stem is *kol* and in Korean it is *kaji*. Both of these mean "to take." The Tamil *panni-konden* has the sense of "I made it for myself, but the literal translation of the phrase is "I made and took it." Identical with this is the Korean *mandarū-kajinta* which means literally "having made take," or "I made and took it." In both, this is the sole method of expressing this reflexive idea.

The Negative Voice. Caldwell says "Properly speaking, the Dravidian negative is rather a mood or voice than a conjugation. All verbal themes are naturally affirmative, and the negative signification is expressed by means of additions or changes." That this is also true of Korean will appear as we proceed. Now, the Indo-European languages generally express the idea of negation by the use of a separate particle used adverbially, but this is not true of the Turanian languages, in all of which a particle of negation is inserted between the theme of the verb and the ending. In the more refined of the Dravidian dialects, in which a written literature has exercised a strong conservative influence, the negative verb has but one tense, which is indeterminate in point of time. But the Malayalam has a present, past and future negative. In Tulu and Gond every tense of every mood has its corresponding negative form. This is what we would expect to find also in Korean, and in fact it is what we do find. The negative is found in every tense and mood which is affected by the verb. In the imperative alone there is an exception in Korean as well as in Dravidian. Each of them find it difficult to use the ordinary negative particle with this mood of the verb. The Korean obviates this difficulty by the use of the prohibitive verb in place of the simple negative one.

Caldwell shows by a careful study of the various dialects and by a course of lucid reasoning that the negative particle in universal use in those dialects is the simple vowel *a*. In Korean the invariable rule is to use the particle *an*, and there is evidence to show that in this particle the *a* is the base and the *n* is unessential. Here in the start we find a striking similarity, for the expression of negation is a very primitive one and one that would be likely to survive when many other words have changed in form. There is one slight difference in use between the Korean and the Dravidian particles of negation. In Dravidian it is appended directly to the root or stem of the verb, but in Korean the syllable *chi* always intervenes between the stem and the negative particle. As this ending is that of one of the verbal nouns it almost looks as if the negative of any verb were formed by the use of the verbal noun of that verb used as the subject of a negative verb whose stem is *an*. This would make the *an* something more than a particle of negation, and would indicate a considerable difference between the Korean and the Dravidian method; but we never find the stem *an* used alone. It is often used in the form of *an-ita*, meaning "no," but this is simply the particle *an* prefixed to the verb *ita* and means literally "it is not." With this understood, it appears that if the verbal noun in *chi* is used before the particle *an* the latter is followed by a part of the verb *i* (or *il*), or of the verb *ha*. Where the idea of the verb is to be appellative merely, the verb *i*, "to be" is used, but where the idea of the verb is active then the verb *ha*, "to do" seems to have been used. To illustrate: *chak-io* means "it is a book," and *chak an-io* means "it is not a book." In each case the *io* is the indicative of *i* "to be." On the other hand *kachi an t'a* meaning "does not go" is composed of *ka-chi*, the verbal noun of the verb *ka*, "to go," followed by the negative particle, and this in turn is followed by the aspirated ending *t'a*. The aspiration of this ending shows us clearly that the letter *h* has been compensated for by the aspiration and that the full word is *ka-chi an hata*. This aspiration is also carried into the

future, giving us *an k'etta* instead of *an ha-ketta*. What we mean to emphasize is the fact that whether there has ever been a pure negative verb in Korean or not, there are no clear traces of it left today. The *an* is a mere particle even as in the Dravidian. There is some evidence, as I have said, that the *n* of this particle is not an essential part of it. This is best illustrated in the prohibitive or expostulatory verb *a-sū* meaning "don't" or stop." It may be a question as to whether the root of this is the same as that of *an*, but it looks very much like it. Koreans affirm that it is the same *a*. But it must be confessed that Korean grammarians and etymologists leave much to be desired in the way of accurate thinking. I append a few examples of the use of the negative particle in each of these languages.

(D) *chey-a-*, "not."

(K) *hachi-an-*, "not do."

(D) *pov-a-*, "not go."

(K) *kachi-an-*, "not go."

(D) *ak-a-*, "not become."

(K) *doechi-an-*, "not become."

(D) *sey-a-da*, "that does not."

(K) *hachi-an-nan*, "that does not."

It is not necessary to multiply examples. The fact remains that both these languages form their negatives in precisely the same way and by the use of a particle that is practically the same.

In the formation of the prohibitive verb we find that both the Korean and Dravidian depart from the simple negative particle. Something more seems necessary. The Telugu adds *ku* to the negative particle to form the prohibitive form. The classical Tamil has the prohibitive particle *ar-ka*, The Gond dialect has the prohibitive particle *manni*. In this connection we note that in Turkish the negative particle is *ma*. The necessity of something more than the simple negative particle in forming the prohibitive is strongly accentuated in Korean. Here we have what seems to be a prohibitive verb formed on the stem *mar* or *mal*. Like the negative particle *an*, it follows the verbal noun in *chi*, but unlike

the *an* it is a verb in itself, This stem *mar* looks very much like the Gond *manni* and the Turkish *ma* and there is doubtless some ancient affinity between them.

In discussing the probable origin of the Dravidian negative particle *an*, Caldwell goes on to say certain things that would indicate even more correspondence between the Dravidian and Korean forms than anything that I have heretofore expressed. He says, for instance, that "the negative *a* of the Dravidian verb is doubtless equivalent to *a* or *il*, the ordinary isolated particle of negation. In Korean the particle *an* is also an isolated particle of negation and the very close relationship between the letters *l* and *n*, which are practically interchangeable in Korean as in Dravidian, would show that the forms in both languages are identical. But I find even more important matter in his statement that "I regard *a* as the original shape of the negative base, answering to *a* the primitive demonstrative base." He agrees with Dr. Gundert that this negative base is derived ultimately from the demonstrative base. They agree that the remote demonstrative base *a* forms the particle of negation in the negative verb "just as this *a* in its interjectional form has the signification of a question. From the meaning of a question comes the meaning of negation." It is certain that in the colloquial Tamil the idea of negation is often expressed by putting a question. For instance *adu varuma?* means literally "will it happen?" but the idea to be conveyed is "It will never happen." One mode of the Korean verb is devoted exclusively to this idea and I call it the expostulatory mode. It is formed by adding the particle *na* to any tense of the verb. It is a strong negative though interrogatory in form and always followed by the rising inflection. For instance *ka-ket-na* is formed of the stem *ka* "to go," the future ending *ket* and the ending *na*, and it is literally translated "Will (I, you, he etc.) go?"; but it is spoken in a scornful way as if the word "Absurd" were added. It is plain then that there is no difficulty in supposing that the negative idea could come by way of the interrogative. But

this matter of the correspondence between the demonstrative base and the negative in Korean deserves further mention. We have two verbs meaning "to be" in Korean; one is *il-ta* and the other is *it-ta*. They are both formed on the same stem, *i*. The former is used solely in appellative construction and never alone. The latter is the verb signifying existence. The stem of both these verbs is identical with the proximate demonstrative base, *i*. The negative of the former is made by the use of the negative particle before the verb forming *an-i-ta*. This negative particle *an*, of which the basic part is *a*, is not at all far removed from the vowel of the remote demonstrative, which is *ü*. This is pronounced much like our English *ea* in the word *earnest*. It is not at all fantastic to suppose that while the positive base is the same as the proximate demonstrative, the negative is the same as the remote demonstrative. Again, the negative of the *it-ta*, "to be" is *üp-ta* or *öp-ta*, and the vowel of this is identical with the vowel of the interrogative pronouns throughout. It is all a mere theory, but there is as much evidence to show that the Korean positive and negative were formed of the the proximate and remote demonstratives as to show that the Dravidian were so derived. Whether this derivation be correct or not, the fact that the very same line of argument must be used in either case indicates some close relationship between the Korean and the Dravidian. It might be worth while to note that there is more or less correlation between the antithesis of remote and proximate and the antithesis of positive and negative. It seems, judging from the Korean, that it was this idea of proximate and remote that suggested the idea of positive and negative. That which is near, is. That which is remote, may or may not be. More force is added to this suggestion by the fact that Korean negative verb *öp-ta* means either that the or less thing spoken of is non-existent or that it is merely not the here. In answer to the question "Where is your father?" the Korean will answer "He is not," meaning that he is not here, but in answer to the question "Have you any money?" he will say "It is not," namely that he has

none. This is quite at variance with Indo-European usage, where *non est* means more than mere absence.

Appellative Verbs, or Conjugated Nouns. At this point we find a very interesting departure of the Korean from the Dravidian. It is a departure caused by the fact that Korean undoubtedly split off from the parent stock at a date so remote that the personal terminations of the Dravidian verb had not as yet been developed. Caldwell agrees that in very ancient times there were no personal terminations to the Dravidian verb. But it must be confessed that the appellative idea is also a very ancient one, and must also have antedated the formation of such pronominal endings. How does it come about, then, that any Dravidian noun may become a verb by simply taking on the pronominal ending of the verb without the use of any verb stem whatever? The noun *kon*, king, in Tamil becomes *kon-en* I am king, in which there is no verb stem, but only the personal termination such as would be used after a verb stem. This might be translated "king I." In the Korean, on the other hand, there is a verb regularly used after any noun to form the appellative. This verb, as we have already seen, is *il-ta*, whose stem is *i*. It is never used alone, but only after some noun. There can be little doubt that it was derived from the verb *it-ta* "to be" and follows the analogy of the English which uses the verb "to be" in the same double way. We have no desire to "explain away" this difference between Korean and Dravidian but we are bound to ask ourselves how it comes about that a noun can become an appellative by simply adding a personal pronominal ending. We note that this ending is the one used with verbs and differs in form from the ordinary personal pronoun. Now, the Dravidian verb "to be" is *ir* of which the ultimate base is probably *i* the same as in Korean. If we imagine the Dravidian appellative formed of the noun, the verb and the personal ending we should instead of *kon-en*, "king I," *kon-i-en*, "king am I." But the personal termination alone implies the existence of the verb, so what would be more natural in the gradual metamorphosis of language than the absorption

of this weak vowel *i*? For my part it looks the most natural thing in the world. The Korean never adopted the principle of using pronominal terminations and so it was impossible for it to drop the verb itself and depend solely upon the termination to indicate the appellative idea. At this point the objection may be made; Does it not show a radical difference between the two languages. If one of them adopts so fully the use of pronominal endings while the other eschews them entirely? The answer to this lies in the fact that since something like two thousand years before Christ the Dravidian peoples of India have lived side by side with their Aryan conquerors and have assimilated certain of their linguistic characteristics. It is certain that these personal terminations are highly convenient; they would be the most likely to find a foothold in the Dravidian dialects. The manner of their use will be taken up in its proper place. But meanwhile the use of such endings by the Dravidian and their non-use by the Korean offers no more valid objection to the theory of the original unity of the two peoples than the large use of Latin derivatives in English and their comparative disuse in German would argue that those two languages are not closely allied.

But before dropping the subject of the appellative nouns there is still one striking similarity that we must consider. In both Korean and Dravidian we find many appellatives based upon the preterite relative participle. In Dravidian this is seen in the placing of the preterite relative participle formative *iya* after the noun which forms the appellative. For instance, *val* means strength and from it we get *val-ian*, which means literally "he who is strong," or freely "a strong man." I believe that here too the participial ending could not originally have been appended to a pure noun, but that there has been an elision of the weak verb stem or an absorption of it into the *iya*. In precisely the same way the Korean relative participle is made to do duty in the formation of appellatives, only the Korean has developed the idea much further than the Dravidian has. The preterite relative participle is formed in *n* or *eun*, according to euphonic

necessity, the present is in *nan* and the future is in *l* or *eul*. Now on each or any of these participial endings an appellative verb can be made, preserving the tense of the participle. In fact there is a whole appellative conjugation in Korean based on this plan. For instance *Na-ga an-du* means I know, and *nă-ga a-nan-io* also means I know, but it comes to mean this because it is literally I am the knowing one. *Nă-ga ka-ket-ta* means I will go. This is the regular indicative form, but *nă-ga-kal-i-ta* also means I will go because it says I am the one who will go. This appellative conjugation is one of the commonest and most distinctive features of the Korean language and is used constantly. There can hardly be a question as to the striking similarity of Korean and Dravidian usage on this important point.

CHAPTER XI.

Conjugational System.

Pronominal Terminations. Caldwell says "The primitive Turanian verb seems to have been destitute of pronominal terminations altogether. The pronoun was neither prefixed nor affixed but had a position of its own as a separate word. This continues to be the case with the most distinctive Turanian languages." And again "It would appear therefore, that the Dravidian verb was originally uninflected, and this may partly account for the circumstance that Malayalam so readily lost the inflexion which, in common with the Tamil, it had acquired. The period when the Dravidian verb was uninflected must have been long prior to the separation of the present tongue into dialects, in all of which, even in the rudest, a system of inflexions has been developed."

When the Aryan conquerors of India drove the Turanian aborigines before them into the Deccan or across the Irrawadi into Burmah the latter had not, we may reasonably assume, developed their inflexional system. They still retained their Turanian simplicity of language. Those who left the Indian peninsula took with them

only the primitive characteristics of the family. These characteristics were strongly marked, and it is quite reasonable to suppose that wherever they went, and however widely they were scattered, they would still retain these characteristics and develop along approximately parallel lines. Now the evolution of a system of pronominal terminations is quite at variance with the genius of the Turanian languages and it forms a valid argument against the inclusion of the Dravidian languages in the list of the Turanian tongues, unless the best of evidence can be adduced to show that this later development was brought about by extraneous causes. Such cause is not far to seek. The Aryans were a people much higher in the scale of civilisation than the Dravidian, and the conquest of the country by the latter resulted in bringing the two in close touch with each other in the relation of master and servant. Those who left the peninsula escaped this contact but those who remained were inevitably influenced by the close proximity to and the daily intercourse with the conquerors. The development of a system of pronominal terminations was the result of a racial characteristic of the Aryan. The idea of personality and individuality was highly developed, and it is this characteristic that in its survival and increment has thrown the Indo-European peoples centuries ahead of the Turanian peoples in all that makes for civilisation and enlightenment. When we ask ourselves, therefore, what influence the Aryan language would have upon a subject people like the Dravidian, we are compelled to grant that such influence would be along the line of the strongest and most useful characteristic of the dominant language. Now, there can be no question as to the enormous value of the personal terminations in making language concise and perspicuous, nor can there be any question that the personal idea was on the whole, the most essential point in the inflexion of the Aryan verb. How else can we explain the fact that the personal terminations were added directly to the stem of the verb and, indeed, incorporated with it, while the temporal and modal inflexions were given a secondary place?

No, it is strictly logical to affirm that the gradual adoption of a pronominal system of terminations by the Dravidian languages was inevitable.

But the highly important question remains as to the method of such adoption. One thing which commended the pronominal terminations to the Dravidians must have been the fact that it is the genius of the Turanian languages to effect everything in the line of inflexion by the use of suffixes. The Aryan pronominal terminations were thus in line with the Turanian idea. It had been only the lack of the personal idea which had prevented the Dravidians from developing such a system themselves, but once the door was opened to them and they became inoculated with the idea of expressing personality and even gender in strict accordance with their own agglutinative methods, they naturally and inevitably adopted a modification of the Aryan system. We know that in the Aryan tongues the personal idea had expressed itself in the verb previous to or at latest simultaneously with the idea of time and mode. In the Indo-European languages the personal signs of the verb are formed by suffixing pronominal particles to the stem of the verb, and the temporal or modal signs follow. Now this was practically impossible for the Dravidian to do. His verbal inflection, so far as tense was concerned, was complete and it was impossible for him to tear the verb apart and interpose a personal fragment between the stem and the temporal ending. Nor was it necessary. His language was a strictly agglutinative one and it would have been doing violence to the genius of his speech to attempt to *incorporate* a personal sign with the root of his verb as was done in the Aryan. The Turanian incorporates nothing, he simply adds. When, therefore, he came to adopt personal terminations he did it strictly according to the genius of his own speech and added them to the verb as already inflected; namely by appending them to the signs of tense.

The point we would make is this, that the mere agglutination of personal endings to the verb was not at all difficult nor unnatural *after the personal idea had*

once taken root; and it was the contact with the Aryans that supplied the idea. The departure of a part of the Turanian people from the peninsula broke them off from the possibility of being so influenced and therefore caused a wide divergence between the two portions of the Dravidian peoples. I think this explanation is sufficient to show that the existence of the personal terminations in the Dravidian tongues does not militate against the theory of a close relationship between them and the Korean.

It must not be inferred that there is a total lack of the personal idea in the Korean verb. It crops out only occasionally and sporadically but it can be found here and there. For instance almost any tense of the finite verb may have a form used exclusive for the first person singular. The verb *kan-da* means I go, you go, he goes, they go; but we may also say *ka-no-ra* which can mean nothing but I go. So *ka-ket-ta* has its *ka-ket-no-ra* and *kat-ta* its *kat-no-ra*. The ending *ra* is easy to explain being merely an indicative ending used also in other connections, but the *no* is an anomaly so far as scholarship has as yet been able to determine. The *n* is perhaps the *n* of the first personal pronoun *na* but it is problematic. Then we have *ka-ja* which is an epicene hortative and as such is purely of the first and second persons. Then there is another form which logically excludes the first and second persons but does it not by the use of a third personal particle or ending but by implying that the place of the action is remote from both speaker and listener.

Formation of the Tenses. There is such marvelous similarity between the Korean and the Dravidian methods of forming the tenses that the language of Caldwell in describing the Dravidian applies equally well to the Korean. "Most of the Dravidian (Korean) tenses are made from participial forms of the verb; an inquiry into the participles is, therefore, a necessary preliminary to an inquiry into the tenses." Dravidian (Korean) verbs have two species of participles, one of which, called relative participles because they include the signification of the relative pronouns, will be inquired into in a sub-

sequent part of this section; the other, commonly called the verbal participles, and which are now being considered, constitute the bases on which the tenses are formed.

The Verbal Participles, their signification and force. It is true of Korean as of Dravidian that there are three verbal participles, the present, past and future. All of these are not found in all the Dravidian dialects at the present time but they are all found in some of them. For instance in the Malayalam and in the classic Tamil there is a future verbal participle and a past verbal participle; in the Canarese there is a present and a past verbal participle; in the Tulu there are verbal participles of the present (or future), imperfect and perfect. Whether verbal participles in all three tenses once existed in all the dialects and have in part disappeared it would be rash to affirm, but true it is that the Dravidian tongues recognise the three today. In Korean the same may be said. There have never been any Korean grammarians to systematise the science of grammar and we are obliged to pick our way carefully, but I do not hesitate to say that the Korean possesses verbal participles of the present, past and future. As to the past and future participles there can be no doubt whatever. They are in constant and universal use. As to the present verbal participle there may be more question, but the grounds upon which I base the assertion of its existence are as follows. In every Korean verb we find three relative participles in constant use. We also find three verbal nouns, present, past and future, in constant use. The presumption therefore is in favor of our finding three verbal participles to correspond to these. Now in the verb *ha-ta*, the commonest and the most important of all Korean verbs, we find two forms, *ha-ya* and *ha-yū*. These have often been confounded but those who have studied into their use, including the French priests who are the pioneers of the study of Korean, agree that the *ha-ya* is a present verbal participle and that the *ha-yū* is the past verbal participle. On the latter point there is no question whatever. All recognise the *ha-yū* to be the past participle; but there are those who think that the

two are the same. This opinion is not shared by those who have made the closest study of the language, and the literary use of the participle is almost entirely conclusive on the point. It is true that no other verb seems to have the present verbal participle, and this has made it hard for some to believe that this one has it. But if we examine closely we shall find, I believe, that there are distinct traces of a present verbal participle in all Korean verbs. For instance, the past verbal participle is ordinarily formed by adding the vowel *ũ* or *ūt* to the stem; but we find that the imperative of every verb is formed by adding to the stem first this vowel *ũ* and then the imperative modal ending *ra*. The form denoting necessity is formed by adding this vowel *ũ* and the ending denoting necessity, *ya*. It would be wholly absurd and logically impossible for the Koreans to have formed an imperative mode or a mode denoting necessity by the use of a *past* verbal participle. So far from looking toward the past these ideas look distinctly toward the future. Even if there were no presumption in favor of the existence of a present verbal participle, no grammarian would be willing to take the responsibility of asserting that this imperative could have in it a definite past sign. In these cases and in others that occur the vowel *ũ* represents a lost present verbal ending, which is preserved for us in the form *ha-ya*, mentioned above. The *y* of this form is not essential to it. As with the form *ha-yũ* the *y* is an addition for which no explanation has yet been forthcoming; but that it is unessential is shown by the fact that it appears in no other verb in the language, all of which have simply *ũ* without the *y*. The vowel *a* is the sign of the present verbal participle in the verb *ha-ta* and I am convinced that originally it was the sign in all the verbs; but with time this *a* and the *ũ* of the past verbal participle have become confused in pronunciation until the *a* has almost been lost. The difference in sound between these two vowels in Korean is less than the difference between the English *a* in father and *o* in other.

We have said that *a* is the sign of the present verbal participle and *ũ* of the past but there is one other pos-

sible explanation. We note that the past verbal $\ddot{u}$ is always followed by the letter t and this t seems to be essential to the past idea. It is never used with the present tense. It is possible therefore that the $\ddot{u}$ may be the original present verbal ending and that the addition of the t made it past. We shall see some reasons for this when we come to discuss the past tense of the verb. How this $\ddot{u}$ could have changed to a requires explanation. We find throughout the Korean language that the vowels o and a have an affinity for each other and that the other vowels have an affinity for the vowel $\ddot{u}$. Every verb whose stem ends in o or a forms its past in a rather than the usual $\ddot{u}$. The Korean alphabet contains the diphthongs oa and aa but $o\ddot{u}$ and $a\ddot{u}$ are impossible. It is quite reasonable therefore to suppose that, for euphonic purposes, the Koreans changed the $\ddot{u}$ to a after verbs in o or a . But *hata* is a verb in a , so we would expect to find the past in a , but by some curious and unexplained reason a y is inserted so that we have *haya* instead of *haa* as we should have expected. This intervention of the letter y makes it possible to preserve the regulation $\ddot{u}$ and so we find that *hata* has both forms *haya* and *hay\ddot{u}*. It looks very much as if the verb had originally used only the *ha-a* but after the introduction of the y for euphonic purposes they found that it was possible to revert to the regulation $\ddot{u}$ and had ended by retaining both *ya* and *y\ddot{u}*. That the a and the $\ddot{u}$ are identical may be argued from a host of illustrations. The necessitative mode of the verb is formed by adding *ya* to the verbal participle. *Po* is the root of the verb "to see" and *po-a-ya* means "must see." *Chu*, to give, however has *Chu-\ddot{u}-ya*. *No* gives *no-a-ya*; *pi* gives *pi-\ddot{u}-ya*; *ka* gives *ka-(a)-ya*. It is mere euphonic law which determines whether a or $\ddot{u}$ shall be used. I incline, therefore, to the belief that $\ddot{u}$ is the real present verbal ending and that t must be added to make it a past.

Caldwell describes the Korean verbal participles with the utmost nicety when he says of the Dravidian "Properly speaking, the words which are called verbal participles are not participles at all, since they do not par-

ticipate in the nature of adjectives, as all Indo-European participles do. They have somewhat of the signification of gerunds, inasmuch as in addition to the idea of time they include more or less of the idea of cause."

The Present Verbal Participle. This is not found in Tamil but is found in Tulu and Canarese. Caldwell gives the following illustration of its use in Canarese. "Vikramarka, punishing the wicked and protecting the good, reigned over the kingdom." Now these words punishing and protecting can be used as adjectives in English but not so in Dravidian or in Korean. The adjective form would be something quite separate. The idea here is almost that of the words "Vikramarka, *in* punishing &c." Not that his whole rule consisted in punishing and protecting but that the two things were contemporaneous with and essential to his rule. No words could be found that would express more perfectly the Korean usage of the present verbal participle. This identical usage is found on every page of a Korean book and could hardly be dispensed with. The words *tá-dap ha-ya kal-a-sa-da* means "answering, he said" or more freely "he answered and said." Anyone who would try to make this *ya* a sign of the past tense would be under the necessity of translating these words "Having answered he said," which would be absurd since the answering and the saying were simultaneous and in fact identical acts. These two illustrations, one from the Canarese and one from the Korean, are identical in the force with which the present verbal participle is used. Caldwell's words are eminently applicable to Korean when he says. "In those Dravidian dialects in which there is a present, as well as a past, verbal participle, the present is used to express subordinate actions which are contemporaneous with that which is denoted by the principle finite verb, whilst the preterite expresses subordinate actions are antecedent in point of time to the principle action." In Tamil we find that the preterite verbal participle covers the ground of the present as well as the past and means the one or the other as the context requires. This is, on the face of it, what occurs in the

Korean, where, as we have seen, the same vowel is used today in places where the past or the present time is understood. But I am convinced that in the Korean at least there has been a definite present verbal participle; nor am I sure that careful investigation with this in view might not bring to light evidences that the Tamil once had a present verbal participle, even as the Canarese and Telugu have.

The Past Verbal Participle. This is found indubitably in all the Dravidian tongues and in the Korean alike and need detain us only long enough to record the fact of the identity in use. "General Yi, having dethroned the king, assumed the reins of power." This is a fair rendering of the past verbal participle in Korean, and it is parallel with Caldwell's illustration "Salivahana, having killed Vikramarka, assumed supreme power."

In what words would we more faithfully describe the Korean sentence than in the following? "In every sentence there is but one finite verb, which is the last word in the sentence and the seat of government; and all the verbs which express subordinate actions or circumstances, whether antecedent or contemporaneous, assume an indeterminate, continuative character, so that the sense waits in suspense for the authoritative decision of the final governing verb. Hence these participles may properly be called continuative gerundials." This is the grand syntactical law which rigidly governs the Korean language as well as the Dravidian.

The Present Tense. As a rule this is formed in Dravidian by the use of the present verbal participle, but there are numerous and important exceptions. The present tense being the original and fundamental one, we might expect to find considerable variations in it. When the language developed special signs to mark the past and future they took the shape of agglutinative endings and therefore the mere lack of any particular sign would be enough to mark the present. It is not surprising therefore that we find the present less distinctly marked than the other tenses. In poetical Tamil we find that the present may be formed by adding the pronominal suffixes to

the relative participle instead of to the verbal participle. In Korean there is the very same thing. It is the same difference that we find in English between the expressions "I study" and "I am studying." In Korean the active verbs that are not instantaneous in their action but require a period of time for their performance regularly form the present tense by the use of the relative pronoun, but the descriptive or attributive verbs omit all temporal suffixes and append the modal ending directly to the root of the verb, in the present. For instance the stem of the verb "to give" is *chu* and the present of the low form is *chu-nda*, in which the *n* is the sign of the present relative participle, but the verb "to be old" has *neulk* for its stem and has simply *neulk-ta* for its present. At the same time all Korean verbs of whatever kind have a form that is made by simply adding the indicative ending *ta* to the stem. As I have said, this forms a regular present indicative in attributive verbs, but in all others it must be considered a general tense. Some call it an infinitive but it is not such, for it is always used in an indicative sense. In English we say "The verb 'to do,'" using the infinitive form as the name of the verb, but in Korean we say "The verb *chu-ta*" which might be translated "The verb 'gives,'" using an indicative form as the name of the verb.

In the Dravidian dialects there seems to be a great variety in the formation of the present tense. It would look as if the original verb without sign of tense was retained as the present after the past and future had been evolved by the use of tense signs, and that after this it was found convenient to use some sign of the present tense, but since the dialects had already become distinct, various methods were employed to mark the present. I do not say this is what actually occurred, but suggest it as a possible explanation. Whatever be the reason it is a fact that there is far more agreement between the dialects in the formation of the past and future than in the formation of the present. The Korean too seems to have left the beaten track in its formation of the present, by introducing an adjective element. The same is true in

English where the only true present of any verb whose action requires a space of time for its performance is the progressive form. "I am reading" is the only present tense of the verb to read, for "I read" is a general or customary action rather than a true present. The Korean seems to have caught this idea and so makes use of the adjective participle ending in the formation of the present of active verbs, though it rejects the adjectival form in all attributive verbs. This is why it is so hard to find traces of a present verbal participle in Korean, if, indeed, there be one. When we come, however, to the past and future tenses all is comparatively definite and distinct.

The Preterite Tense. I have already shown that there is some difficulty in determining whether the participial *ũ* in Korean was originally a present or a past sign. Its use in several places where a past tense is impossible would point toward a present meaning in it, but however that may be we find the vowel *ũ* used constantly in the formation of the past tense in Korean. But this vowel does not stand alone in the formation of a tense sign of the past in Korea. It is almost invariably followed by the letter *t*. The omission of this letter after the vowel is so very exceptional that some have affirmed, and with some show of reason, that the *ūt* together forms the sign of the past. If we were to conclude that the vowel was originally the sign of the present tense, it would be entirely reasonable to suppose that the *t* was added in forming the past tense. In this case we should have to say that the *t* alone is distinctive of the past. As to this point I can make no definite statement, but that the *t* is essential to the full expression of the preterite idea seems to be fairly well-established. As such, it stands alone. There is no other genuine preterite verbal ending in Korea. *Chu-ta* "to give" has *chu-ūt-ta* for its past. *Mūk-ta* "to eat" has *muk-ūt-ta* as its past. It is a peculiarity of the Korean that this vowel *ũ* is never used with verbs whose stems end in the vowel *a* or *o*. These always use *a* instead of *ũ*. *Po-ta* gives us *po-at-ta*, *ka-ta* gives *ka-at-ta* (shortened to *kat-ta*). There is not much grammatical significance in this change, for it is

the universal rule in Korean that $\tilde{u}$ is difficult of pronunciation after a and o . This change therefore may be considered euphonic. But whatever changes the vowel may undergo the t is always found in the sign of past tense.

Let us see, then, what the Dravidian has to show in this line. The most characteristic method of forming the past is by adding the letter d to the verb stem. All roots ending in i or e form the past in this way and many which end in u . There are some apparent irregularities but they will all be found to be modifications of this d . Sometimes it is t instead of d and sometimes this d unites with a final consonant of the stem and changes into dd or tt . It is true that in some of the verbs the past is formed by adding i to the root but in many cases this seems to be a modern corruption of the language. For instance in the modern colloquial we have *bal-i* for having lived, but in the classical this is *bal-d-u*. There are some instances in which it would seem as if this i were a simple vocalic bond of union between the root and the ending d but Caldwell shows that there are many cases in which this explanation is not sufficient and he concludes by saying that d and i are independent signs of past time. But he adds that of these two signs d is to be considered, if not the older, at least the more prevalent and characteristic.

In Tamil the preterite is formed by the use of these same letters d and i , but the former predominates and even when i is used there are traces of the use of a d at a more ancient period. Caldwell adds "Notwithstanding, therefore, the prevalence of i as a sign of the preterite in Tamil, as in Canarese, there seems to be some reason for regarding it as an innovation, or at least as a less characteristic and less widely used sign than d ."

The Malayalam preterite is practically the same as the Tamil.

The Telugu preterite is invariably formed in i , but we are told that even in this dialect there are traces of the use of d as a sign of the past. Sometimes the particle *ti* is inserted between the i and the pronominal termina-

tion. Caldwell thinks that it cannot be doubted that this *ti* is closely allied to the *d* of the other dialects.

The Tulu dialect has an imperfect and a perfect, the former being formed by the *d* or the *i* while the latter uses the *d* exclusively.

The minor Dravidian dialects agree with these substantially, and in conclusion Caldwell says "These instances tend to confirm the supposition that *d* or some modification of it is, if not the only, yet at least the most ancient and characteristic sign of the Dravidian preterite." When we find then that every Korean verb forms its past tense without exception in this same letter *t* or *d* (which are interchangeable) we conclude that in this respect there is a vital similarity between the two languages.

The Future Tense. The future is, in Dravidian, the least distinctive of all the tenses and it is used to denote what is, was, or shall be habitually done, and it is generally the connection which shows the time. For this reason we are not surprised to find that there is considerable confusion in the different dialects in regard to the formation of a future. It seems to have grown up as an after-thought and without such fixed rule as we find in the case of the preterite. But what we wish to find, for a comparison with Korean, is the oldest form of future ending in the Dravidian. This is given us in a nut-shell in Caldwell's words, "The oldest form of the future was made by adding *g* or *k* to the root." He cites *sey-gu*, I will do, and *sey-gum*, we will do. In these and similar forms the future idea resides in the letter *g*. In certain cases this *g* is hardened into *kk*, *adei-kken*, I will obtain. These forms are found only in the poets and represent the most ancient forms of the future that can be discovered today. In the modern dialects of the Dravidian we find few traces of this *g* or *k*. Instead of these we find *v*, *b* or *pp* used.

The Korean forms its future invariably in *ge* or in *get*, the former being so far as I can discover the pure future ending. This is practically identical with the *g* or *k* of the ancient Dravidian. The Koreans seem to have

developed the future idea more perfectly than the Dravidian and it may be that the experiences through which the original Dravidians passed after breaking away from the parent stock and wandering away to the islands of the Pacific may have had something to do with this. It may be merely fanciful, but I cannot help imagining that a people roving freely about at the impulse of their own will and constantly discovering new shores would be far likelier to find need for a definite and distinct future tense than a people conquered and cowed by a superior race and made either slaves or fugitives.

The Compound Tenses. There is little possibility of comparing the Korean with the Dravidian compound tenses since in each case these tenses were formed long after the separation. The Korean forms these tenses by the use of two or more tense signs combined. The pluperfect is formed by reduplicating the past ending, and the future-perfect is formed by combining the past and future endings, though this latter combination is more often used for the hypothetical past. In the Dravidian, on the other hand, we find the compound tenses formed by suffixing the various tenses of the substantive verb to the verbal participles of active verbs. In this we find some considerable divergence of method between Korean and Dravidian, but we must note Caldwell's further statement that "A vast number of auxiliary verbs are used in all the Dravidian dialects in conjunction with infinitives and verbal participles for the purpose of expressing compound ideas. This is eminently true of Korean as well. And so far as the use of the substantive verb is concerned we find that the Korean has a full set of all the tenses of the verb, formed by adding the substantive verb to the adjective participles, or at least the appellative verb, whose stem is the same as that of the substantive verb. Caldwell says that many compound tenses are formed by suffixing the various tenses of the substantive verb to the verbal participles of active verbs. Thus "Doing I was" or "Doing I came" would represent the imperfect. But many auxiliary verbs are used to express compound or complex ideas. How true this is of

Korean will be seen from the following illustrations from Korean.

Hā-pogesso (doing will look) means "will find out."

Hā-chusio (doing please give) means "please give."

Murū-pogesso (asking will see) means "will inquire."

Chugū-kanda (dying goes) means "is about dead."

Kū. ū-kanda (walking goes) means "walks."

Pirū-mūkta (borrowing eats) means "begs."

In each of these cases there are two verb stems used, the former always taking the form of the present verbal participle. We see here a complete identity with the genius of the Dravidian compounds.

As for the substantive verb we find in Korean that each tense is fully represented. To illustrate this I will give the ordinary tense forms and beneath each the substantive form.

Pat-nan-da He receives.

Pat-nan-i-ra He receives (He is the receiving one).

Pat-ūt-ta He received.

Pat-eun-i-ra He received (He is the has-received one)

Pat-ket-ta He will receive

Pat-eul-i-ra He will receive (He is the will-receive one)

It will be seen that the first of each of these pairs is the simple verb while the second shows a present condition of the actor due to a present, past or future act. It corresponds to the difference between the two English expressions "He has read well" and "He is well-read." The Korean and Dravidian agree precisely in this ability to express verbal ideas in two different sets of forms, verbal and appellative.

The Relative Participle. Says Caldwell, "It is a remarkable peculiarity of the Dravidian languages that they have no relative pronouns whatever, and that the place of the relative pronoun is supplied by that part of the verb which is called the relative participle; a participle which is invariably followed by a noun and preceded by the words or phrases that depend upon the relative." No words could be found which would describe the Korean method more precisely than these do. Both Korean and Dravidian sometimes avoid the relative idea by a loose

continuative construction. That is, for instance, instead of saying "The man who came yesterday has come again today," they both can express it by saying "The man came yesterday and has come again today." But it should be noted that in Korean and Dravidian both this is done rather in the hurry of conversation and in an idiomatic manner than according to the more precise and distinctive form. Neither of them are obliged to have recourse to any such arrangement, for "the signification of the relative, together with that of the definite article, is contained in, and distinctly expressed by the relative participle of the verb. The following table will show the identity in method between the two languages.

(D) *varugir-a al*, the person who is coming (coming person)

(K) *O-nan saram* " " " " " " " "

(D) *vanda al*, the person who came ("came" person)

(K) *o-n saram* " " " " " " " "

(D) *varum al*, person who will come (the will-come person)

(K) *o-l saram* " " " " " " " "

Examining these forms we see that there is a definite present, past and future adjective participle, which is used like any other adjective and which give us the ideas expressed by the use of the relative pronoun in English, but without the cumbersomeness of the English. In English we have also a similar usage in part, for we say "The coming man," "The running stream," "The laughing girl." But it is confined to the present tense, if we except the perfect participles as used in such cases as "The broken bowl," "The lost chord," etc., and even these do not follow the Dravidian idiom, for they represent a passive state of the person or thing referred to and not the active. We cannot say "The yesterday broken vase," nor "The two years ago lost purse." In other words, the Dravidian and Korean relative participles are capable of taking an object and of being modified by adverbial phrases at will. For instance, instead of saying "The elephant which wanders all day in the forest" they both would say "The all-day-in-the-forest-wandering elephant" and instead of saying "The man who told me

not to go today" they would say "The to-me-to-day not-to-go-having-told man."

As a general rule the Dravidian dialects form the present and past relative participles by adding the particle *a* to the verbal participial stems, but another particle is used for the future. In Korean the present and past relative participial endings are closely allied, being *nan* and *n* respectively while the future has an entirely different ending, namely *l*. It cannot be said that ordinarily the Korean appends these particles to the verbal participial stems, although these stems have become so obscured in the process of time that we cannot positively say that they did not once appear in the relative participial formation. It is possible to use the verbal bases however, even in Korean, especially in the past tense. For while we would ordinarily say *mūkeun* for the past relative participle of *mūk*, to eat, we can also say *mū-ūt-eun*, in which formation we see the relative ending following the regular verbal participial base. We can therefore affirm that there is a general and marked similarity between the Dravidian and Korean methods of forming the relative participles.

Another strong similarity is found in the fact that in both languages ultimate verbs of quality or relation can be used as adjectives by appending the past relative ending. In both Korean and Dravidian the real adjectives are almost all made in this way. If we would say "small" in either of these languages it would be literally "that was small." The expression "dead man" would be by "that-has-died man."

In dealing with the very obscure subject of the origin of these participial endings Caldwell believes he finds a definite connection between them and the possessive case endings. It is generally recognised that the Turanian languages nominalise the verb, consider it radically a substantive. If this is so it would not be strange to find that the conjugation of the verb, at least in some of its forms, is effected by endings similar to and perhaps derived from the case endings. It is on this supposition that Caldwell sees a distinct relationship between the

Dravidian possessive ending *a* and the relative participial ending *a*. He considers them radically the same. This theory is at least partially corroborated by finding, in certain of the northern branches of the Turanian family, that the same particle is likewise used for these same two purposes. We cannot say that the same is true in Korean but it is at least an interesting coincidence that the present relative ending is identical with the ending of the accusative of specification and that the future relative ending is almost identical with the accusative ending.

CHAPTER XII.

Formation of Moods.

In the Indo-European languages we find that some of the moods, especially the subjunctive, have a separate conjugation from the indicative, but this applies neither to the Korean nor the Dravidian. In both of these the logical modifications of the verb, which we may call moods, are effected but the simple use of suffixes that in no way affect the stem of the verb, and for this reason some have agreed to consider the indicative mood the only one in these languages. This seems to me to be a very stiff and juiceless way to put it, as if the mood depended in any way upon the grammatical form. The mood is a logical factor which is far more prominent in the Turanian languages than in the Indo-European. The Korean verb, at least, can boast of possessing a score of moods, most of which would have to be expressed in English or in any other Indo-European language by a circumlocution.

The Conditional Mood. In both Korean and Dravidian this is expressed by simply postfixing to different parts of the verb a particle corresponding to the word "if." In Tamil the most characteristic and probably the most ancient method of forming the conditional is to add the particle *il* or *in* directly the verbal theme. Thus

pog-u, going, becomes *pog-il* or *pog-in*, if (I, you, etc.) go. In the Korean the conditional is formed by adding the particle *myŭn* to the verb stem in the same way as the *il* or *in* is added in the Dravidian. Thus *ka-ta*, to go, becomes *ka-myŭn*, if (I, you, etc.) go. This ending *myŭn* offers a wide field for research. We find that in Canarese the conditional particle is *re*, but that it is always added to the relative particle of the preterite, though the idea conveyed is not confined to any particular time. This coincides with a theory which I formed some years ago as to the origin of the Korean *myŭn*. We have a Korean preterite form in *myŭ*, which is identical in meaning, so far as I can discover, with the past participle in *ũ* or *yŭ*. For instance *ha-yŭ* and *ha-myŭ* mean practically the same thing. The former is seldom used except in combination with the *t* which is the distinctive mark of the indicative preterite but the *ha-myŭ* is constantly used in the sense of "having done." Now I believe that the conditional ending *myŭn* is formed by adding to this *myŭ* the case ending of the accusative of specification *n*. This would mean literally "as for having done" or freely, perhaps, "in the event of having done." It will be recognised by all students of grammar that there is necessarily a past idea in all conditional expressions. The protasis always comes before the apodosis and is therefore past when the action of the governing verb takes place. My theory that the final *n* of *myŭn* is that of the accusative of specification is strengthened by the fact that it is often lengthened to *neun* which is the form the ending always takes after nouns ending in a vowel. We may say either *ha-myŭ-n* or *ha-myŭ-neun*. If we go deeper into the origin of this ending *myŭn* and take the ending *myŭ* alone we shall arrive at a still more remarkable similarity to the Dravidian. I am treading on dangerous ground here but the reader must judge whether there is reason in the following deduction. It is a conclusion at which I arrived long before I had attempted any comparison of Korean and Dravidian, and it is as follows.

We have in Korean a past verbal noun which is formed by simply adding the letter *m* to the root of the

verb. From the verb *ha* we have *ha-m*; from *po* we have *po-m*; from *mūk* we have *muk-eum* (the *eu* being simply euphonic). This verbal noun means the accomplished fact, the thing finished. It may be described as the resultant of the act. I am of the opinion that this verbal noun is followed by the appellative auxiliary verb whose root is *il* "to be." The *l* of this verb is so weak that it disappears in almost all the forms and leaves us the single letter *i*. If to this we add the verbal ending *u* we have *ham-i-ū*, which becomes *ham-yu*, or as the Koreans write it *ha-myū*. The significance of this, at this point, lies in the fact that one of the principal ways of forming the conditional in Tamil is by adding the conditional form of the verb "to be" to any tense of the verb that is being used. For instance *sedyen-ag'il* means literally "in the event of its being that I did." So, precisely, the Korean *ha-myūn* as above explained would mean "If the being is an accomplished fact." In time the Korean came to use the whole combination, *myūn*, together, as the sign of the conditional. This is easy to imagine when we remember that the Koreans have never had any such thing as a grammar, and that the literature in the native vernacular is of a quality which would afford no help at all in preserving the oldtime grammatical landmarks.

The Concessive Mood. This is generally expressed in the Dravidian language by affixing the conjunctive particle to the conditional particle. This conjunctive particle is *um*. So from *seyd-al*, if I do, we derive *seyd-al-um*, though I do. I consider it to be a very striking coincidence that the commonest of all the Korean ways of forming the concessive is by adding to the verb the particle *do* which is identical with the Korean conjunctive particle *do*. The less reason we can see for using the conjunctive particle for this purpose the more striking is the coincidence. If we take the common Korean expression *na do ka-ges-so* it will depend entirely upon the accent whether we mean "I, also, will go," or "Even I will go." If we accent the *na* it means the former but if we accent the *do* it means the latter. In the one case the *do* is conjunctive merely, in the other it is clearly concessive. The

Dravidian seems to differ from the Korean in that it appends the concessive ending to the conditional, while ordinarily this is not the case in Korean; but if one were to listen carefully to the Korean in his ordinary vernacular he would often hear the word *hamyün-sū-do*, a concessive form in which the conditional *myün* is followed by the concessive *do*, but with the intervention of another syllable, *sū*. It is not necessary to discuss this syllable here, but simply call attention to the fact that the concessive does frequently follow the conditional ending.

The Imperative Mood. Caldwell says, "In the Dravidian languages the second person singular of the imperative is generally identical with the root or theme of the verb. This is so frequently the case that it may be regarded as a characteristic rule of the language." Any one conversant with the Korean is aware that this is measurably true of this language. In spite of the fact that there are distinct imperative endings in common use it still remains true that in nine cases out of ten the Korean uses the clean root of the verb as the imperative. It is only when he wishes to emphasize the inferior standing of the person he is speaking to that he will use the distinctive imperative ending *ra*. It will be necessary to deviate a little at this point to explain that just as the Dravidian left the beaten track of the Turanian languages in adopting pronominal terminations for its verbs, so the Korean has left the beaten track by the adoption of a system of honorifics which are equally foreign to the genius of the Turanian speech. This system is doubtless due to Chinese influence which fostered the idea of social distinctions, and these in turn resulted in the invention of verbal endings to correspond. Now in a primitive state we would expect to find an imperative which is used among equals. This would continue unless gradations of society should become so pronounced as to require modifications of it. This is what has occurred in Korea. Among equals it is the universal custom to use the simple root of the verb as the imperative. If a higher form is used it is simply out of politeness, but among friends and intimate acquaintan-

ces where there is no danger of giving offence, the simple root of the verb is used almost exclusively. From this point it worked both up and down. The pride of caste made it inevitable that a low form of imperative would come into use, and such we find in the ending *ra*. The use of this ending among equals would not be tolerated for a moment, and it is for this reason that I cannot believe it to have been the original imperative. As a rule we find in Korean that the higher the honorific the longer the ending, which indicates that it was a successive growth from the common forms to the highest; but we also find that this lowest form is longer than the common or middle form, and so it looks very much as if pains had been taken to evolve a form that would be distinctly low. Everything points to the probability that the middle form is the oldest, and this, as we have seen, is identical with the Dravidian method.

But in the Dravidian dialects we find important deviations from this rule, and in a general way we may say that in all the Dravidian dialects the imperative has a strong affinity for the future tense. This is found mostly in the plural number. In Canarese the second person plural of the imperative is identical with the second person plural of the future tense. Also in Tamil it is identical in form with the aoristic future. The ending is in *um*, of which more presently. Now this use of the future endings for the imperative is found conspicuously in the Korean as well. Though the common form is the simple root of the verb, one distinct imperative is formed by simply using the future verbal participle in *ge*. This may be considered a little less considerate than the plain root of the verb as an imperative but still it is used frequently among equals and to those that are slightly inferior.

I have referred to the ending *um*, which is both a conjunction and the sign of the future in the Dravidian. Now in the Korean, *ke* is the sign of the future, but I believe that the *k* of this ending is the distinctive part of it; for we find the forms *ha-kū-ni*, *ha-ku-nal*, *ha-kū-ni-wa* etc., all of which are recognised as being formed on the

future tense. In these we find the *k* without the *e*. But we also have the pure conjunction *ko*, and the question arises whether there may not be the same connection between the connective *ko* and the future ending *ke* that there is in Dravidian between the conjunctive and the future ending *um*.

The Infinitive Mood. This appears to be the most indefinite and mixed of any of the Dravidian moods, for Caldwell finds some difficulty in finding a clear line of demarcation between true infinitives and verbal nouns. He contends that an infinitive must be a form which has ceased to be declined, has no plural and is capable of being used absolutely. We see no good reason for making such a stricture. It seems to us to be very mechanical. The infinitive is logically a verbal idea used as a noun and his line of cleavage between an infinitive and a verbal noun seems very unnecessary. If we examine the use of the infinitive in English or Latin we shall find that it is a verbal noun, logically, in almost every case. Take such expressions as *He wants to go*; *To learn is wise*; *I have to work*; they are all really verbal nouns used as the subject or object of a verb. In such cases as *I went to see him*, where purpose is expressed, we have an elision of the word *for* which was originally used, and it should be *I went for to see him* which makes the *to see* as truly a noun as the word *money* would be in the expression *He works for money*. Caldwell's distinction between an infinitive and a verbal noun is mechanical rather than logical. There is no difference between the expressions *Reading is important* and *It is important to read*.

Caldwell says that it has been customary in Dravidian grammars to call verbal nouns infinitives. He thinks this is not sufficiently discriminative but he adds below that "I have no doubt that the true infinitive was originally a verbal noun also (as in the Scythian languages it is always found to be) and this origin of the Dravidian infinitive will, I think, be proved in the sequel." In Korean the infinitives are indistinguishable from the verbal nouns. Every infinitive in Korean is de-

clinable though there is no use of plural. The original oneness of the Dravidian infinitive and the verbal noun seems to have undergone modification in the direction of Sanscrit and the same differentiation has been effected as that which we find between the Latin infinitive and supine. The Korean has never developed this distinction and a gerundial is simply a case of the infinitive. But as we shall see there is an exquisite arrangement and adaptability of the Korean infinitive which give it as wide a range of use as the Dravidian infinitives and verbal nouns combined.

The Dravidian infinitive, "properly so called," is generally formed by suffixing *a* to the verbal theme. This sign is found in all the dialects excepting the Gond and the Tulu, in which verbal nouns only are used as infinitives. We think this survival of the use of the verbal noun as the infinitive in these more primitive dialects to be very significant and it supports the theory that the original infinitive was simply a verbal noun.

But we must look more closely at what Caldwell calls some exceptional cases. In Malayalam the future verbal participle is frequently used as an infinitive. The same is true of Tamil. In Canarese a verbal noun in the dative case is used as an infinitive. The same is true of Tamil. There seems to be some strong bond of sympathy between the *future* the *dative* and the *infinitive*. Now what do we find in Korean? The future sign is *ge*, the dative ending is *ge* and the commonest infinitive ending *gi*. Here is at least a very curious coincidence. Caldwell says "It is true that our English infinitive 'to do' is the dative of a verbal noun. It is also true that the Dravidian infinitive is a verbal noun in origin and never altogether loses that character."

In the Tulu dialect we find an arrangement of infinitives most like that of the Korean. Here we find infinitives of different tenses, present, imperfect, and perfect. This is eminently true of the Korean as we shall see presently. But before going into this we must examine the genuine Dravidian infinitive in *a*.

So far as the research of foreign students into the

Korean language has as yet proceeded, the infinitive is in a most chaotic state. The form made by appending the ending *ta* to the verbal stem has been commonly called an infinitive but this is not at all defensible. The ending *ta* is the commonest of all indicative endings and while the absence of any tense sign leaves the verb very indefinite the ending *ta* can by no means be said to make an infinitive. For instance the verb *ha-ta*, the so called infinitive, is never used as the subject of a verb nor in any other connection where an infinitive is logically required. We can therefore safely lay this aside. The ordinary student will be tempted to confine the Korean infinitive to the forms ending in *gi*, *ji* and *m*, and this is very natural, but I must call attention to another form which resembles the true infinitive of the Dravidian very closely. In form it may be considered the same as the present verbal participle but its use is thoroughly infinitive. It is found usually followed by the verb *ka*, to go. For instance the expression *chugū kanda* means literally "going to die," the English idiom is reproduced exactly. Now this *chukū* is the verb stem *chuk* with ending *ū*, which we have before described as the present verbal participle ending. But it may well be that it is capable of being used in an infinitive sense. In fact the line of demarcation between a pure infinitive and a present verbal participle would be very hard to find. The expression above used may be translated either "going to die" or "dying goes" or "goes dying" and it seems to me that it is all one whether we call the *chukū* a present verbal participle or an infinitive. This is a good illustration of the difficulties which we have to meet in determining the exact classification of the Korean forms. We have as much right to say that this ending *ū* is an infinitive ending as to say that the Dravidian *a* is such.

When we examine the uses of the "true" infinitive in Tamil we will see how small a part of the logical uses of an infinitive is covered by it and how thoroughly dependent the Tamil is upon the verbal nouns. Caldwell tells us that the following are the uses of the infinitive. (1) The majority of Dravidian adverbs are infinitives of

neuter verbs. (2) The infinitive is elegantly used with an imperative signification. (3) It is used as a sort of ablative absolute. (4) To express minor actions that take place contemporaneously with the principal action. (5) If reduplicated the infinitive has the force of the Latin gerundive in *do*. These illustrations show how little of the idea is conserved by the so-called Dravidian infinitive and Caldwell himself confesses that they "prove that the Dravidian infinitive has the force of a gerund or verbal noun."

If we accept the Korean form in *ũ* as being some sort of an infinitive we shall find that it has as much claim to the name as do these Dravidian infinitives, for we note first that just as in (1) above the Korean uses the infinitive in *ũ* in an adverbial sense. The Tamil *pada gotteun* means to knock down but literally "knock so as to fall." In precisely the same way the Korean *nũm-ũ kanda* means to go over but literally "to go so as to surmount" or, to coin an expression, "surmountingly go." The Tamil uses the infinitive also to denote purpose or end as we do in English; for instance, in the expression "Tell him to come" or "he came to study." So in Korean we have the form *po-rũ onda*, "come to see" but this is formed on the future adjective participle ending in *l* or *r*. Yet we see in the Dravidian that many of the participle endings are used as infinitives.

But we must pass to the verbal nouns in order to find the true logical infinitive, which is the verb used in a substantive sense.

CHAPTER XIII.

Verbal Nouns.

Caldwell divides verbal nouns into two classes, those which are derived from the relative participle (adjective participle) and retain the tense, and those derived from the theme directly and are indeterminate in point of time.

Participial Noun. These in Dravidian are formed by

tion of them succeeded in crossing the tremendous mountain barrier which separates China from the uplands of Persia. These wanderers descended into the plain of China and settled.

The next migration from the birthplace of the race was on a far grander scale. It was the Turanian race. At that time the human race probably had many of the characteristics which we call Mongolian. There was the high cheek bone, the depressed and flattened nose, the oblique eye, the thick lips and prominent mouth. The cranium was probably more or less brachycephalic, the skin somewhat dark, and the hair and eyes black. This race branched out in all directions. The pastoral age had commenced and the tendency was towards those points of the compass where pasture was to be found. To the east they were blocked by the lofty mountains and cruel plateaus and therefore they could not migrate with their flocks in that direction but swept north, south and west. They people Central Asia and Siberia. They probably covered Europe. They certainly filled the Indian peninsula. Here lies in all probability the cause of China's isolation, namely the intervention of the pastoral age between the first and second migrations. This is what makes it impossible to call the true Chinese "Mongolians." It is a question whether they even belong to the Turanian family. Their language surely shows no affinity for the Turanian. They have many of the same physical characteristics but these were doubtless common to the whole race at that time. I am fairly well convinced that it is as great a mistake to call the pure Chinese members of the "Mongolian" race as it would be to call Germans members of the Latin race.

Then came the rise of the mighty Aryan race which, with its mysteriously new physique, its superior skill and genius swept everything before it whichever direction it took. It drove the Turanian peoples in all directions. Entering India, perhaps 2,500 years before Christ, it drove out or subdued the former, Turanian, inhabitants. Some of these were absorbed, some fled to Burmah and further, some were crowded into the Deccan, some got

over to Madagascar and even the coast of Africa. Some crossed from Ceylon to the Malay peninsula and Sumatra. It was the mighty Aryan arm that caused the widest dispersion of the Turanian peoples. From the Malay peninsula as a new center they radiated in all directions; southward into Australia, eastward in to the islands of the Pacific, northward through the islands that skirt the coast of China, the Philippines, Formosa, the Liu Kiu Islands and finally the southern shores of Korea and Japan.

Meanwhile the northern branch of the same race was filling central and northern Asia, pressing eastward until they reached the Pacific and pouring over into Korea, so that the two members of the family having come by different routes faced each other at last across the Han River in Korea.

This theory makes no attempt to explain the presence of the strong Negrito element in the Islands of the Pacific. Whether this element was an earlier or a later one still remains to be determined but of the very wide dispersal of the Malay race there can be no question. It is paramount in the Philippines, in Formosa and in hundreds of the Pacific islands. Another step in the proof or the disproof of our theory will be a careful comparison of the Malay languages with that of Korea on the one side and the Dravidian dialects on the other.

So far as Korea is concerned the general argument showing that northern and southern Korea were peopled from diametrically different directions may be briefly stated. The earliest inhabitants of northern Korea were quite ignorant of the existence of settlers in the south. The kingdom founded in 1122 B. C. by the Chinese refugee Kija had its capital at Pyeng-yang but it never extended south beyond the Han River. Not until after the fall of that dynasty in 193 B. C. and the flight southward of the last king do we hear anything of the southern people. The earlier traditions of Korea are utterly silent as to them.

In the south this Kijun, the last of his house, found a people so new, so strange, so utterly different in every

way from those of the north that history has preserved the causes of his astonishment. If these people had not been very different from those to which the north had been accustomed we should have had no such minute description. We are told far more about them than we are able to learn about the northern people who had a much higher civilization.

We are told that they set little or no value on gold. If there had been any intercourse with the north they must have acquired a knowledge of the value of this metal.

Their use of beads differentiated them from the people of the north. Also the habit of tattooing the body. These are southern forms of ornamentation, not northern. There is a certain amount of tattooing among far northern tribes but nothing compared with that among the people of the tropics where clothing has to be dispensed with. Tattooing has died out in Korea, the only vestige of it being the habit of drawing a silk thread, dipped in red dye, under the skin of the wrist in making certain kinds of pledges. The form of government in southern Korea was another cause for surprise. There was no centralization, but isolated communities, each a political integer; and most remarkable of all, an utter absence of fenced or walled towns.

There were in all seventy-six little communities scattered thickly along the southern coast terminating with the points where the northern boundaries of Chul-la and Kung-sang Provinces lie to-day. There were three congeries of settlements called respectively Mahan, Pyöghan and Chinhan. These names were probably later ones but they marked a certain general fact, namely that there were three kinds of people each of which had certain characteristics peculiar to itself. There are certain sets of names which occur exclusively in certain ones of these three sets and not in others.

In Mahan, for instance, there are eight names that end in *pi-ri* or *pi-li*, *r* and *l* being one and the same letter in Korean. These eight names are Li-li, Na-pi-li, Chun-pi-li, Mo-ro-pi-li, Pyuk-pi-li, Yu-ra-pi-li, Kamha-pi-li and Cho-san-do-pi-li. We need only to glance at the map of

southern India to see how this ending is matched in the Dravidian names Trichinapalli, Alapalli, Shivilperri, Sarwapalli, Saimpalli, Tinneveli, and hundreds of others.

Another common ending for names of settlements in southern Korea was *ro*. This may be the same as the Dravidian *ur* meaning town and found in numberless villages and towns of southern India as, for instance; Trich-ur, Sat-ur, Tan-ur, Tripat-ur, Tanj-ur, Aut-ur, Har-ur, Pam-ur, Bell-ur, Bengal-ur, Gudal-ur, Kar-ur,—Nellore, My-sore, Cuddalore etc., etc. The transposition of the letters whereby *ur* becomes *ro* is by no means an uncommon phenomenon in the transformation of language.

For instance the conditional mode of the verb *ha* is *ham-yŭn* which comes from *ham-yŭ* and this in turn from *ham*. Each of these has a past or perfect idea. The conditional, in its protasis, may be considered a past or perfect since the condition must be wholly accomplished or perfected before the result expressed in the apodosis can be effected. This is seen if we take the sentence "If you take the medicine you will recover" and throw it into the equivalent one "Having taken the medicine you will recover."

When we come to discuss the middle of these three forms, namely *ha-ji*, we find greater difficulty, for there are two forms identical in shape but different in use. One is what the Koreans call "half-talk" and is an exclamative form used loosely instead of a true indicative. It is almost a vulgarism. But the verbal noun in *ji* is a pure grammatical instrument of enormous use. I prefer to call it the future verbal noun as distinguished from the forms in *gi* and *m* which, as we have seen, are respectively present and perfect. It may not be easy to convince the superficial student that this form in *ji* is a future verbal noun since the proofs are, so to speak, circumstantial. It would be easier to call it negative or dubitative than future, but as futurity and uncertainty are closely allied and as uncertainty and negation are first cousins we may perhaps call the verbal noun in *ji* a future. For (1) it is almost universally used in prohibitions. In this case it is followed by the prohibitive verb *ma*. *Ha-ji mara* means "Do not do it," *Kaji mara* means "do not go." Now a prohibition is the forbidding of an act as yet unaccomplished, merely contemplated, and therefore future. But (2) it is commonly used in all negative expressions. It would be interesting to discover whether its use as a negative followed or preceded its use as a prohibitive, but this will probably be impossible. This ending *ji* is commonly used as a dubitative ending. Take the expression *Kananji mananji*. This means "whether is going or not." So the conjunction of the prohibitive, dubitative and, to a less extent, the negative ideas point to a future meaning.

CHAPTER XIV

Glossarial Affinities.

A comparison of the vocabularies of any two languages, in order to be of practical value, must be made with great care and many mental reservations. There are, after all, comparatively so few phonetic representations of ideas that mere coincidence plays a very large part in the glossarial likenesses between languages. And yet the comparison of words has its value if properly carried out. There are certain general rules that must be rigidly applied and wide margin must be left for mere chance similarities.

We need to know, in the first place, what kind of words are the most likely to survive the wear and tear of the centuries and still retain their original sounds. If the two peoples are remote from each other we must estimate what kinds of words would be likely to survive during the period of migration, and to do this we must bear in mind the nature of the territory which intervenes and the probable vehicles of migration. For instance, if the migration was from a tropical to a temperate climate or vice versa we would not expect to find similarities in names of objects peculiar either to the tropics or to the temperate zone. If the migration was by water we would not expect to find similarities in the names of objects that could not be transported by boat. In other words the test must stand or fall in the comparison of those basic words which no change of environment or method of transportation would be likely to effect.

It is a study of radical significances rather than surface sounds, for during the intervening centuries the names of objects have frequently changed because of the shifting of significance from one attribute or property of an object to another. For instance the word "hand" may be variously derived from the basic ideas of "grasp" "make," "count," "point," etc., for the hand is used for all these purposes, and as time goes by the word for hand may shift from one to the other of these.

It has been generally held that, on the whole, the

personal pronouns are the most tenacious in their hold upon their original phonetic equivalents. And it is natural that we should begin with these as a natural starting point. We find that the Korean and Dravidian pronouns are practically identical at every point. They have been sufficiently discussed under the head of pronouns so that we need only refer to that portion of this work. This remarkable similarity, as we saw there, is rendered all the more significant by the fact that Korean follows the lead of the southern branch of the Turanian family of languages and has nothing whatever in common with the northern branch in the matter of personal pronouns.

After the personal pronouns, great weight is given to similarities between the words for the cardinal numbers up to ten. Here too we find a marked similarity between the Korean and Dravidian. This was discussed under the head of cardinal numbers, to which the student is referred.

After this, importance might be claimed for similarities between some of the more basic of the agglutinative endings in the declension of nouns and the conjugation of verbs, the signs of mode and tense, etc. These we have already presented and have shown that in this regard there is such marked similarity between the two languages that mere coincidence will not explain it.

We come at last to the general vocabularies of the two languages, and here we shall note that the similarities are not superficial but radical, that the words that are alike are of such a fundamental character that no mere migration would be likely to change them.

The following list must be prefaced by the acknowledgement that the writer has had access to comparatively few Dravidian words, but every similarity has been noted whether following the rules enunciated above or not. The fact that similarities are found in almost every case to lie between words of basic significance strengthens the probability of some vital connection between the two languages.

CHAPTER XV.

Comparative Vocabulary.*

HOUSE. D. *kudi*. In southern Korea where presumably the oldest terms are preserved we find the word *kudul* for room. It is preserved throughout the land in the compound word *kudul-jang* which means the flat stones built into the floor of the room. In primitive times when houses had but one room the terms for house and room were naturally interchangeable. Note also that the D. for hole is *kuri* and the K. for cave in *kul*. Also the D. for tank is *kula*. The D. for to hollow out is *kudei*. It seems fairly plain that the original idea of a dwelling place both in D. and K. was a place dug out, hollowed out, a rough cave covered with a shelter.

FATHER. D. *appa*; K. *abi* or *abaji*. So many languages have the same essential root for father that there is no special significance in this.

HEAD. D. *talei*. The Korean has a different word for head but has *t'ül* for hair. By metonymy the similarity is sufficiently clear.

EAR. D. *kivi*. K. *kwi*. The change from *kivi* to *kwi* is so simple that the words may be said to be practically identical.

HAIR. D. *mayir*. Curiously enough the Korean word for hair is nearly the same as the Dravidian for head, and the Korean for head, ie. *mūrā* is not very different from the Dravidian *mayir* for hair. These two terms seem to have been transferred.

FOOT. D. *kal*. The Korean is *pal* which presents a somewhat radical difference but there are other words in the two languages which differ only in this single respect. The similarity of the other elements of the word make it worth tabulating.

SUN. D. *nayir*. The Korean has almost the identical word, *nal*, for day. As *r* and *l* are interchangeable in both D. and K. the resemblance is complete. The D. also has the word *nal* for day.

MOON D. *Tingal*. The K. has shortened this to *tal*.

*The abbreviation D. stands for Dravidian and K. for Korean.

As the *nayir* for sun, was shortened in Korean to *nal*, day, so the *tingal* for moon was shortened to *tal*. The lack of any literature in pure Korean has made this language much less conservative than Dravidian and as a rule we must expect to find in Korean elided forms where often the Dravidian retains longer ones.

SKY. D. *van*. The root of the Korean for sky is *han*. The complete word is *hanal* but that the *al* is only an ending is shown in the derivative *Han-anim*, God, in which the *min* means lord or ruler. The change from the aspirate *v* to the aspirate *h* is quite natural. The Koreans do not use *v*.

FIRE. D. *ti*. The Korean has this same root *ti* for burn.

HILL. D. *malei*. The Korean is an abbreviation of this, namely *mu-i*. The dropping of the weak *l* is what might be expected.

VILLAGE. D. *ur-u*. The root is *ur*. In ancient times many of the first settlements from the south along the southern coast of the Korean peninsula had names ending in *ro* which by euphonic law frequently changed to *no*. Now just as the ending *piri* in Korean is the equivalent for the D. *pillei*, town, so this K. *ro* may be easily conceived to be, by metathesis, the same as the D. *ur*, which also means village.

SNAKE. D. *pam-bu*. The Korean is *pǎ-am*. If, as is likely, the root of the D. *pam-bu* is *pam*, then its similarity to the Korean *pa-am* is unquestionable.

BLACK. D. *kar-u*. The root is *kar*. The Korean root *kūm* is not very similar but the Japanese *kuro* is strikingly like the D. *rar*.

STAND. D. *nil*. The Korean never uses an initial *n* before *i* so the Korean *ir* (or *il*) the root of the word rise would be very like the D. *nil*. Of course the words stand and rise are closely related.

END. D. *koti*. The Korean is *kent*. The great similarity here needs no comment.

COVER. D. *pot*. The Korean reverses the consonants and says *top*. This may or may not be a case of metathesis.

SHORE. D. *ka-rei*. The idea is closely similar to the broader term "edge," the root of which in Korean is *ka*. In its long sea wandering it would not be strange if the terms "edge" and "shore" should be practically the same. Note also that the D. word for bank is *ka-rei*, and the Koreans always say *kang-ka* for river-bank.

BEAUTY } D. *ara-gu*. The Korean word for beauty
PRECIOUSNESS } D. *aru-mei*. is aramdapta of which *aram* is probably the past verbal pronoun from a root *ara*. But the Korean *aram* implies also something more than mere beauty. It is fitness, worth, value, and in this sense it covers much the idea of preciousness.

CINNAMON D. *karppu*. The K. is *kepi* a word very similar to the D. The retention of the same sound for this tropical plant is not without significance.

CHIEFTAIN. D. *kon*. This word is found firmly imbedded in the Korean. In the earliest times, before the Chinese had deeply impressed Korea, the native word was *kū-sū kan*, in which the *kan* doubtless meant King or Ruler. It also appeared in the other word for King, namely *Ma-rip-kan*. It also, perhaps, appears in a slightly different form of *Yi-sa-keum*, which was the forerunner of the present word *In Keum* or *In Geum*, meaning King. The Chinese *kun* presents an interesting similarity and the Turkish and Tartar *khan* as well. It would seem as if they all came from some single ancient word that was coined long before the first great dispersion of the human race.

BODY. D. *mey*. K. *mom*.

WORD. D. *marru*. K. *mal*. The *r* and *l* are interchangeable. The D. *marru* is precisely the way a Japanese would pronounce the Korean word *mal*.

LAY HOLD OF. D. *pat-tu*. The Korean has two words closely allied to this, namely *put*, to lay hold of, and *pat*, to receive or take. They are both probably derived from the same D. root.

KNOWS. D. *ari*. The Korean root is *ar* or *al*. This word of prime importance is seen to be identical in the two languages.

BORE. D. *tulei*. The Korean root is *tul*, showing

that in both languages the idea of perforation is similarly expressed.

HALF. D. *padi*. The Korean *pan* shows a change from the dental *d* to the corresponding nasal *n*. In this connection note that the D. *pan-gu* means a portion. Here the root is the same as the Korean *ban*.

DO. D. *gey, chei, sei*. The Korean *ha* is at first sight very different but as *s* and *h* are so frequently interchanged we find a radical similarity underlying the various forms.

SMALL. D. *sir*. The Dravidian sound of *s* is much like *ts* and so this *sir* is not at all unlike the Korean *chök* especially when we bear in mind that the Korean *ö* is so like *ur* as to be sometimes written that way by foreigners. The final *K* of the Korean verb, however, lessens the value of other points of similarity.

SPOON. D. *karite*. Now the Korean for "finger" is *karak*, but this is used for any protuberance or extension like a finger and the Korean for spoon is *su-karak*. It looks as if the *kar* in both languages had a close relationship.

RAIN. D. *pey*. The Korean *pi* is so nearly identical that we may say that both the D. and K. have the same word for this important idea.

FLEETING. D. *truta*. The stem of this is probably *tru* which is very like the K. *tara* as it appears in the verb *tara-nao*, to run. That *tara* is the stem is proven by the fact that in compounds, as *taram-chui*, squirrel ("running rat,") we find the *tara* with the verbal noun ending *m*.

YOUNG. D. *ilei*. If we take the *il* to be the stem of this word it is identical with the Korean root *il* meaning early. The intimate relation between the words young and early will be apparent.

MAKE. D. *pan-ni*. The Korean root is *man*, the labial *p* changing to the corresponding nasal *m*, a transformation that is common in the growth of language.

FLESH. D. *sadei*. When we note that the Korean *l* is frequently pronounced like a soft *d* we will see that this *sadei* is very like the Korean *sal*, flesh.

NAVEL. D. *kop-pul*. The Korean is *pǎ-kop*, a compound in which the *pǎ* means belly. So the stem *kop* is identical in both languages.

FAT. D. *korumei*. As the Korean is *kireum* we see that the only difference is the change of vowel in the first syllable.

FOLLOW. D. *todar*. The frequent interchange of *l*, *r* and soft *d* explains how the Korean *tarū*, root *tar*, is not radically very different from the Dravidian word.

STAKE D. *tari*. The same root finds an important place in Korean. The Korean bridge which is formed by driving stakes in the water and piling brush-wood and earth on top, is *tari*. The Korean fence which is made of stakes bound together is *ul-tari*. The Korean word for leg is also *tari*. The idea in all these is the same.

DIVIDE. D. *pagu*. The allied ideas of change and exchange are expressed in Korean by the same root, *pag* or *pak*.

BEFORE. D. *mun*. The Korean has formed an adverb on the same root, li. e. *mūn-jū*. The ending *jū* is not common in Korea but a similar one *je* is found in such combinations as *ön-je*, *in-je*, etc., and I believe the root to be *mūn*, the same as the D.

SPREAD OUT. D. *padar*. The Korean word for ocean is *pada* and the vital connection between the flat surface of the sea and the word spread out will be apparent.

BOAT. D. *pa-da-gu*. The Korean is simply *pa* but there is every reason to believe that the root of *pa-da-gu* is the first syllable, in which case the similarity is established, note that the *pada* of *padagu* is the same as the Korean *pada*, ocean.

TOUCH, EMBRACE. D. *an*, *anei*. The Korean root *an* means to hold in the arms.

FEMALE. D. *pen*. This root is found in Korean only in combination. The Korean sometimes forms a compound by uniting a Chinese word with a pure Korean one. Now the Korean for women is *nye-pen-ne*, in which the *nye* is the Chinese 女 and the *pen* is probably pure Korean. If so the Dravidian *pen* and the Korean are identical.

FEED. D. *meygir*. The Korean for eat is *mūk* or *mūg* and for feed is *mek* or *meg*. There may or may not be a likeness here but the use of the same consonants *m* and *g* (*k*) in both languages makes it proper to include them in the list of probable affinities.

THE PLURAL ENDING. D. *hi*. The plural ending for some of the personal pronouns is *heui* which differs but slightly from *hi*.

THE PLURAL ENDING. D. *tal*. This is the old plural ending of the Dravidian and is almost identical with the Korean *teul*.

THE PLURAL ENDING. D. *mar*. This is not unlike the Korean plural ending *muri*.

HEAP. D. *tala*. It is not unlikely that the Korean plural ending *teul* and the D. ending *tal* are both from the more primitive word *tala* a heap.

FLOWER. D. *pu*. The Korean word for flower is different but the Korean *piu* means to bloom, doubtless an allied word to the D. *pu*.

THUS. D. *il-a-gu*. This is a compounded term or at least a declension but we give it to show how similarly the two languages form their compounds. The Korean word corresponding to this word is *i-rū-k'e* which differs very slightly from *il-a-gu*.

TREE. D. *manu*. Here we find a striking case of metathesis, the Korean word being not *manu* but *namu*.

ONE. D. *on*, or K. *han* (see numerals) the Korean *or-so* (root *or*) meaning right, true, may be from the Dravidian, meaning single, straight-forward.

Two (Split) D. *ir*. The Korean *irū-nas* means to grow, arise, be derived from a source. In this way we may see a similarity between it and the Dravidian word *two*, which implies a splitting off, a reproduction. Note in this connection that the D. has also the word *irei* to flow forth, issue. This helps to establish the correctness of the foregoing surmise.

GOOD. D. *nal*. The Korean for good is another word but we have the Korean *na-o* meaning to be better, derived apparently from the Dravidian *nal*.

ABOVE. D. *uyar*. If the root of this is *u*, as we may suspect, it is identical with the Korean *u*, above.

BATHE D. *mi*. The Korean seems to be a compound *me-yuk-kam-so* but the meat of it lies in the *me* which is closely allied, phonetically at least, with the *mi* of the Dravidian.

SISTER D. *tamakkei*. In these we find the

YOUNGER SISTER. D. *tangei*. } same ending *kei* or *gei*.
It is not improbable that in these endings resides the meaning of female. If so it is almost identical with the first and most important syllable of the Korean word *kye-jip* meaning woman.

CALL. D. *pilu-chu*. The root being *pilu* it is almost the same as the Korean *pullū* to call or summon.

TURN. D. *tiru*. The consonants of the Korean *tora*, to turn, are the same but there is a change in vowels. The similarity is however sufficient to be worth noting.

PROHIBITION. D. *manni*. This is equivalent to our English abbreviation Don't! The Korean is *mara* whose root is *mar* or *mal*.

TO BE. D. *ir*. The root of the Korean verb to be, used in appellative constructions is *il* or *ir* the same as the D.

LOWER. D. *tar*. The Korean for this idea is different but we find the same root in the Korean *tūrūjinda* which means of fall.

LIFT. D. *tu*. The Korean root is *tuel*.

OBTAIN. D. *adei*. The Korean root is *öd* or *öt*, which is very like the D. root *ad*.

ROAR. D. *ol-ita*. The Korean for any cry whether of man or beast is *ul*. There is probably a mimetic origin to this word which, of course, detracts from its philological value. It is probably the same as the Latin *uludo*.

BURN. D. *kay*. The Korean word meaning to build a fire is *kyū*. We have already noted the identity in the D. and K. word *ti*, to burn.

VILLAGE. D. *palli*. The ancient settlements in southern Korea were apparently from the south and many of them ended with the letters *piri*. This is so like the D. *palli* that we are tempted to believe there is some vital connection.

SWORD. D. *kara-bala*. The Korean for knife is *k'al* and this is almost identical with the D. *kara* which is presumably the root of *kara-bala*.

HOLE. D. *kunda*. The Korean is *kumong*. This is sometimes called *kunyŭng* and we judge that the radical meaning is found in the *ku*. This is also found in the D. *kun-da*.

YES. D. *am*. The ordinary Korean for yes is another word but the common way of saying "Of course," "Certainly," is this same word *am*.

SHUT UP. D. *muk*. The Korean *mak* differs only in the consonant.

PASS. D. *ka-da*. The Korean root *ka* means to go and the idea is so like the Dravidian *ka-da* that it is at least worth noting.

STRIKE. D. *tattu*. The Korean is *tal*. This is not improbably a mimetic word, the stroke being expressed by the initial *ta*.

WALK. D. *nat*. The Korean transposes the two consonants and gives us *tan*.

COLD. D. *chali*. The Korean shortens this to *chu*.

SHUT. D. *satt*. This is very similar to the Korean *tat*, which also means to shut.

DIE. D. *chachu*. The Korean is *chuk* and the likeness is very striking.

GRASS. D. *pul*. The Korean is identical except that the initial consonant is aspirated giving us *p'ul*.

APPENDIX I.

Korean and Efate.

If the Koreans are a remnant of that great family which was driven from India by the Aryans and which scattered in many directions but principally to Malasia and the islands of the Pacific we ought to be able to find something more than an occasional or accidental similarity between modern Korean and the languages of the South Sea Islands. The argument from vocabularies is by no means conclusive but it must have more or less weight in the cumulative argument which proves that the Koreans are of southern rather than northern stock.

For this reason I propose to show some rather striking similarities which exist between the Korean vocabulary and that of the Efate people who inhabit the New Hebrides Islands. But besides these I shall have occasion to mention several other languages of the Pacific.* Before proceeding to this comparison it should be mentioned that the phonetic systems of the two are very much alike. In each we have the continental vowel sounds of a, e, i, o and u. In each there is but one character for b and p. In each the k, l, m, n, r, s and t are sounded as in English. There are three differences. The g of Efate is pronounced ng as in certain parts of Japan, and except in one of its dialects the letter h is not found, its place being taken by s. But in Korean the letters h and s are very often confounded. For instance *hyŭng* or *sŭng*, *hŭl* is either *him* or *sim*. *hŭng* is either *hyung* or *sung*. This is a peculiarity of the South Turanian languages. In Efate we find the letter f. In the following list I give only the root of the Korean word, as a rule. The Efate words form the basis of the following list and are arranged alphabetically.

In order to save space I adopt the following abbreviations :

An.—Aneityum	Ha.—Hawaiian	My.—Malay	Tah.—Tahiti
Ef.—Efate	Ma.—Maori	Pa.—Paama	To.—Tonga
Er.—Eromanga	Mg.—Malagasy	Sa.—Samoan	Ta.—Tauna
Fi.—Fiji	Ml.—Malekula	Ta. Sa.—Tangoan	Santa dd.—Dialects

A, often e or i,=in, at, to or of: Korean e (에) with the same meanings excepting the last which in Korean is eui (의).

Ab=father: Korean ab-i or ab-a-ji. [Ma.=pa; My.=pa; Mg.=aba].

Afa=to carry a person on one's back; Korean üp (업)=to carry a child on the back. The f of the Efate becomes p in Korean. In Efate this word by metonymy means to carry anything, but its root signification is the above and identical with the Korean. [Sa.=fafa, to carry a person on the back; Mg.=babi, carried on the back; Fi.=vava, to carry on the back].

Afaur=wing: Korean p'ül-p'ül, to flutter. The f and r of Efate change to their corresponding letters p and l in Korean. [Tidore=fila-fila; Torres Id.=peri-peri; Mg.=ma-bur].

Aga=to, that to (often used as possessive particle): Korean E-ge (에게) or Eui-ge (의게), to, also used to denote possession as in the phrase 나 의게 잇소 na-eui-ge is so=I have (lit. is to me).]

Alo=An inclosure, inside—hence belly: Korean an,=inside. In many of the Turanian languages the letter l, n and r are very weak and often interchangeable. In Korean there is but one letter for l and r and it is frequently pronounced n. [Sa.=alo, belly, inside; Ha.=alo, belly].

Alo-alo=spotted or marked: Korean=arung-arung, streaked. Here the letters r and l are interchanged.

Amo-amo=to be soft or smooth: Korean=ham-ham, smooth. [Sa.=ma-ma, smooth or clean; Tah.=ma-ma, clean; To. and Ma.=ma, clean (in the sense of smooth).]

Ani-na=son or daughter: Korean=na, to be born, and nani=which has been born. [My.=anak; Mg.=anaka; My.=kanak.]

Anu=I: Korean=na. [Ef. dd.=anu, enu. An.=ainyak; Epi.=nagku; Ta. Sa.=enau; My.=ana; Papuan=nan].

Ata=to know: Korean=al, to know. The Korean l often has the hard l sound called the cerebral l which is a close approximation to d. So much so in fact that

foreigners have frequently pronounced the Korean word 이리 as idi.

Ba=to rain: Korean=pi. It should be remembered that the Efate b is both b and p. [Epi.=mboba; Ta.=ufu.]

Ba=to go, to tread: Korean=palp, to tread upon. [Fi.=va-ca].

Babu=cheek (dd.=bamu): Korean=byam, cheek. [My.=pipi; Tah.=papa.]

Bago, bago=crooked: Korean=kubul-kubul. We may have here a case of the transference of consonants, the b and g of the Efate becoming k and b in Korean. This is mere change of position and is a common phenomenon in the growth of language.

Bagota=to buy (lit. to separate): Korean=pak-ku to buy (lit to change). Here we have the same derived idea of buying from the idea of separating, changing or exchanging. Both refer to barter.

Baka=a barrier or fence: Korean=mak, to stop up, obstruct. Here the Efate b seems to have changed to its corresponding nasal m in Korean. [Ha.=pa, a fence; Ma.=pa, to block up or obstruct.]

Balo=to wash (by rubbing): Korean=bal-la, to wash clothes. [Sa.=fufulu, to rub, to wash].

Bani=to act violently, to take away property violently: Korean=b⁴, to seize, take away violently.

Bolo=work: Korean=pö-ri, work. The Efate b and l become p and r in Korean.

Be=to be great, to extend: Korean=pu, to swell, enlarge.

Bila=to shine: Korean=pul, fire. [Sa.=pula, to shine].

Bile=to be quick: Korean=balli, quickly; often reduplicated in Korean to balli balli=hurry! [Ef. dd.=bel-bel]. The Ef. also has bili-bili, to be quick.

Bite=to cut: Korean=pi, to cut. [My.=poto, ng to cut, in connection with which see Korean pu of puñjinta=to cut.

Bor-ia=to break: Korean=purū-jita, to break off.

Bu=to see: Korean=po, to see.

Bu=a bundle: Korean=po, a cloth wrap. [Fi=vau].

Bua=to divide, cut open: Korean=puñ-jita to be cut.

Bua=to be empty: Korean=pui-ta, to be empty.

Buele=to be lost: Korean=ilhū-pūrita, to lose. The similarity comes out better in the My.=il-ang, to lose. The root in each case is the syllable il.

Buka=to be filled: Korean=pu, to swell, to be distended.

Buma=to blossom: Korean=piu, to blossom. Ml.=pug, to blossom. Sa.=fuga, flowers. My.=bunga, blossoms; Mg.=vony, flower].

Bur-ia=to make a fire: Korean=pul, fire.

Busi=to blow: Korean=pu, to blow. [Tah.=puha, to blow; Ha.=puhi, to blow;

E=in, on: Korean=e, to, at, in. [Sa.=i, in, at, with, to, for, on, on account of, concerning. The K. has most of these meanings); Ma.=i, of; Fi.=e or i, with].

Ei=yes: Korean=nye, Yes. [Mg.=ey; Sa.=e].

Eka=a relative: Korean ilga a relative.

Elo (dd, alo)=sun: Korean=nal, sun.

Emai=far; Korean=mō, far. [Sa.=mas, far].

Eau=I: Korean=na, I. (Ef. dd.=anu).

Erik=here: Korean=iri, here.

Fasi=tread upon: Korean=palp, to tread upon.

Fira=to pray: Korean=pil, to pray. Tah.=pure, to pray.

Ga=3rd pers. sing. he, or it: Korean keŋ, commonly used in denoting the 3rd pers. sing. Lit. that one].

Gi, ki=to. Korean=ke, to (only used in connection with human beings).

Go=and: Korean ko, and. [Ml.=ga, ka and ko; Fi.=ka].

Goba=to cut: Korean=k'al, knife, [Mg.=kafa, cut].

Gko or Goko=to cut: Korean=gak, to cut.

Gore=nose: Korean=k'o, nose. [Fi.=ucu; Ma.=ihu].

I=this: Korean=I, this.

I-gin=here: Korean=iri, here. [Sa.=i'inei; Fut.=ikunei].

In=this: Korean=i, this. [Mg.=iny, this; My.=ini, this].

Inin=here: Korean=iri, here.

Ita=come, come now: Korean=etta, here!

Ka=there (near): Korean=keu, that (near); [My.=iki, ika, iku, this, that; Ta Sa.=aki, ake, this]

Kabe=a crab. Korean=kue, crab.

Kaf=to be bent: Korean=kubul-kubul, crooked bent. [Ma.=kapu, curly]

Kalumi=spider: Korean=komi, spider.

Kami=to seize, grip: Korean=chap, to seize.

Kam-kam=scissors: Korean=kawi, scissors. [My.=cubit; Ja.=juwit, to nip, pinch; Ha.=umiki, to pinch; Fi.=gamu, to take with pincers; Ef. agau=tongs, nippers.]

Kar-ia=to scratch, scrape: Korean=kariawa, to itch, and also:

Kars-Karoa=itchy, scratchy: Korean=kariüwa itchy.

Kasau=branch: Korean=kaji, branch.

Kata=a thing: Korean=küt, thing. [Fi.=ka, thing]

Ke=this: Korean=keu, that.

Kei=this, that (near): Korean=keu, that (near)

Ki-nau=I: Korean na, I. [dd. anu or enu=I, also nau=I, An.=ainyak, I; Epi.=nagku; Ta Sa.=enau; My.=aku.]

Kita=to divine: Korean=kut, ceremony of exorcism. [Ma.=kite, discover, foresee, divine]

Ko=face. Korean=K'o, nose (a part for the whole?) lit. the Ef. Ko means the part before.]

Kori=dog. Korean=kā, dog. [ma.=kuri, a dog; To.=kuli; Fut.=kuli; Ta.=kuri; Epi.=kuli; El.=kuri.]

Kota=time. Korean=got, immediately, instantly.

Lu=rise up. Korean=na, rise.

Luaki=utterance, proverb. Korean=niagi, talk, story.

Ma (dd. nanum, nanu, nanofa)=day. Korean=nal, day.

Ma.=with, and. Korean=myü, verbal-ending of connection, and. [Ha.=me; Ma.=me; Mota.=ma, me].

Ma-nia=to grind. Korean=mǎ, a mill, mill-stones.
 Mabe=chestnut. Korean=pam, chestnut. [Tah.
 =mape: An.=mop; Malo=mabue.]

Mai or me=rope. Korean=mǎ, to bind, tie. [Sa.=
 maea; To.=maia.]

Maler=transparent. Korean=malk, clear, pure (as
 clear water.)

Malo=to be unwilling, averse. Korean=mal, de-
 noting negative command or prohibition—"don't."

Manu=a multitude. Korean=man, many. [Sa.=
 mano, a great number.]

Manua=to be finished. Korean=man, only, no
 more, (as keu-man-tu=stop.)

Maritan=to wither. Korean=mal or mar, to be
 dry, to wither, thirsty.

Ma=alone, only. Korean=man, alone, only.

Matu-ki=to strengthen or support with posts. Ko-
 rean=püt, to support, to bolster.]

Matru=to be thirsty (dd. manru, mandu, maru).
 Korean=mal, to be dry, thirsty. [Ml.=meruh.]

Ma=interrogative pronoun used indefinitely. Ko-
 rean=muü, the interrogative used also indefinitely.]

Man=very. Korean=mao, very. [Fi.=ban, very;
 Fut.=ma.]

Matta=a rising ground. Korean=moi, mountain
 [S.=amauga, a hill.]

Mea-mea=long. Korean=mör or möl, to be long.

Mina=pleasant, nice. Korean=man, a verbal end-
 ing, meaning pleasant or nice as pol-man-hata=nice to
 see. [Tah.=Mona; my.=manis; Mg.=manitura.]

Miu=wet. Korean=mut, to be wet or daubed with
 anything. [So the Ef. mota=dirty.]

Uma=the hole, *i. e.* the inside of a house. Korean=
 um, ancient form of house made by digging a hole in the
 ground and covering with a thatch.

Mua=to flow. Korean=pu, to pour.

Na=adverb of assent. Korean=ne, yes.

Nabo=to smell. Korean=nāamsǎ or na, a smell(es-
 pecially a bad smell). [Sa.=namu, bad smell; To.=
 namu; a good or bad smell.]

Nai=water. Korean=nā, a brook or small stream.

Namu=mosquito. Korean=mogi [Mg.=moka; Ta-sa.=moke; Malo=moke; My.=namok; Bu.=namok.]

Ni=genitive ending. Korean=eui, genitive ending. [Fi. ni, i or e. of; Ma.=i, of; Battak=ni, of; Bu.=ri, of; Tag.=ni, of; Mg.=ny, of.]

Ore=yes, that's it. Korean=or, ol, it is true, right.

Sa=negative adv. in prohibitive clauses. Korean=asū, stop, don't.]

Sai=to come forth. Korean=sa, new.

Sana=an arrow. Korean=sal, arrow.

Sela=to carry. Korean=sil, to load.

Sera-ia=to sweep. Korean=seur or seul, to sweep.

Si=to blow. Korean=se-ge, violently (to blow) used only in connection with the wind.

Sog=compulsion, force, constraint. Korean=suk, suddenly, forcibly, with a jerk.

Tabos=narrow. Korean=chob or chop, narrow.

Tagoto=axe. Korean=tokeui, axe.

Taku=at the back. Korean=tol, or tor, back, turn. [Sa.=tua; Malo=tura; Motu=dolu (in same connection.)]

Talo=round about. Korean=tol, turn around, to revolve. (Ef. tili-mar=revolve.)

Talu=a crowd, herd. Korean=teul, the universal ending of the plural.

Tama (dd. taba)=to cover. Korean=tüp, to cover.

Tano (dd. tan)=earth, soil. Korean=tang, the earth, ground. (Sa.=tanu; My.=tanem.)

Tari-a=to rub. Korean=tar, to be rubbed, smoothed. (Sa.=tele.)

Taru-b=to fall. Korean=türü-jinta, to fall.

Tan=to abide, be fixed. Korean=tü, more, continually, further. The Ef. tan is used before any verb to denote continuous action. The same is true of the Korean.

Tau=to pluck. Korean=ta, to pluck.

Tatu=a stake. Korean=tari, a stake (used only in composition as in ul-tari, a stake fence or paling.)

Tiko or tuba=post in a house. Korean=teulpo, a crossbeam in a house.

Tiko=staff, walking-stick. Korean=tagi, in composition as mak-tagī, a walkingstick or staff. In this connection the To=toko, a post to tie canoes to is similar to the Korean tuk as in mal-tuk the post to which a horse or other animal is [tethered. [My=takan, staff; Mg.=telaina, staff.]]

Toki=axe. Koreant=tōki, axe.

Tok=violence, force. Korean=tok, poison, but it refers broadly to any violence.

Tu=to stand. Korean=tu, to place, set.

Tuku=go down, send down. Korean=suk, down, an intensive adverb used with verbs denoting motion downwards.

Turuk=to permit. Korean=hūrak, to permit, allow.

U=we, they. Korean=u-rī, we.

Ua (dd. ba)=rain. Korean=pi, rain.

Uago or Uigo=an exclamation. Korean=ǎgo, an exclamation.

Ulua=to grow up. Korean=olla, up.

Um=oven. Korean=um, covered hole in the ground.

Uru-uru=to growl, grumble, murmur. Korean=ururūng-ururūng.)

Usi=to hasten. Korean=ūssa, hurry ! quick !

APPENDIX II.

Korean and Formosan.

It is generally granted that the savages of Formosa are of Malay origin for the most part, and if the Korean language came from the South we might hope to find among these Formosans some similarity to the Korean. We have been so fortunate as to secure a very limited comparative vocabulary of nine of the savage Formosan tribes, which will be found on the next two pages.

In comparing this with the Korean the result is not disappointing. We accept as similarities only those words which show plainly a phonetic likeness, without the application of other euphonic laws than those which govern the whole family of languages to which these dialects, both Formosan and Korean, confessedly belong.

Considered in this way the similarities between Korean and Formosan as exhibited in this vocabulary can be very briefly summed up.

In the word for two we find that nearly all the Formosan dialects agree. Two of them are *tu-sa* and *du-sa* which correspond closely with the Korean *tu*. It is evident that the *ru-sa*, *tu-sa* and *dusa* are the same; and this is rendered the more certain when we note that in very many of the Turanian languages the *r* has a "cerebral" sound like a single roll of the French *r*, so that it closely corresponds to our *d*. In Korean the letter *ㄹ* is frequently pronounced so nearly like *d* as to be mistaken for that letter by foreigners. Outside of this there are none of the numerals that show any considerable similarity. It is interesting to note that in most of the Formosan dialects the word for five is the same as the word for *hand*, showing that the five fingers suggested the word for five.

In the word for head there is no similarity unless it be in the fact that the Korean word for brain is *kol* while one of the Formosan words for head is *koru*.

In the Formosan words for nose, *gaho*, *gutos*, *gutso*, *guraus*, *tergaurn* and *godos*, it is evident that the stem is *go* or *gu*. This is nearly identical with the Korean *k'o*.

The word for mouth in some of the Formosan dialects is *agat*, *angai*, *guar* or *gurus*. These are not like the Korean word for mouth but we have the word *agari* which means the mouth, muzzle or snout of an animal.

There may be seen more or less of a likeness between the Formosan *niepon*, tooth, and the Korean *ni* if we accept the first syllable of the Formosan word as the stem. In the two Formosan words for hand, namely *kava* and *kayam*, in which *ka* is the stem, we find no similarity to the Korean word *son*, but we have the Korean word *ka-rak* meaning finger and the ending *rak* in Korean means an extension or elongation. There seems reason to believe that there was once a word *ka* meaning hand and that *ka-rak* is simply a descriptive word for finger. In the Dravidian languages of India, between which and Korean there are such striking similarities, the word for hand is also *ke*.

COMPARATIVE VOCABULARY

OF

TEN SAVAGE GROUPS IN FORMOSA.

	ATAIYAL	PAIWAN	PUYUMA	AMIS	VONUM	TSO-O	TSARISYAN	PAZEHE	KIWARAWA	BOTEL TABAGO ISLANDERS
One	Koto	Ita	Sa	Tsutsai	Tasi-a	Tsune	Ita	Ida	Isa	Asa
Two	Sajin	Rusa	Rui	Tusa	Rusva	Rusu	Rusa	Iusa	Rusa	Roa
Three	Tungal	Tsu	Tero	Toro	Tao	Toru	Toru	Turu	Tusu	Atoro
Four	Palyat	Spat	Spat	Spat	Pā-āt	Siput	Sipat	Supat	Supat	Ap pat
Five	Māngal	Rima	Rima	Rima	Hima	Rimo	Kima	Hasuy	Rima	Rima
Six	Teyu	Unum	Unum	Unum	Noum	No nu	Urum	Hasuv da	Unum	Anum
Seven	Pitu	Pitu	Pitu	Pitu	Pitu	Pi u	I'tu	Hasuve-duro	Pitu	Pito
Eight	Sipāt	Aru	Waro	Waro	Vāo	Woru	Waru	Hasuve-duro	Waru	Wao
Nine	Kairo	Siva	Iwa	Siva	Siva	S'yo	Siwa	Hasuve-supat	Siwa	Shiem
Ten	Mappo	Purrok	Puru	Puro	Massan	Massok	Puru	Is iit	Tabai	Po
Hair	Sinonohu	Kovaji	Aruvo	Vükos	Koruvo	Housi	Oyal	Vukkus	Vokko	—
Head	Tonnohu	Köru	Tangal	Wongohu	Vongō	Pungo	Uru	Ponō	Uho	Voboya
Eye	Raoyāk	Matsa	Mata	Mata	Mata	Mutsu	Tsarinya	Daorek	Mata	Taregan
Ear	Papak	Taaringa	Rangera	Taringa	Tainga	Köru	Godos	Sangera	Kayal	Momosa
Nose	Gabo	Gurus	Atenguran	Goso	Gutos	Gutsu	Angat	Mujin	Unom	Bebe
Mouth	Nokoak	Angai	Indan	Goyos	Gurus	Garu	Angat	Wahhal	Goyok	—
Tooth	Gennohu	Aris	Ware	Wares	Niepon	Hisi	Haresi	Rupun	Wangan	—
Beard	Gorus	Gisgis	Gisi Gisi	Gis Gis	Gisingisi	Maonao	Gisi Gisi	Moddos	Munus	Y nim (?)
Hand	Kava	Rima	Rima	Kayam	Ima	Mutsu	Rima	Rima	Rima	Tarere
Nipple	Vovo	Tutu	Susu	Tutsu	Tsitsi	Nunu	Tutu	Nunoho	Sisu	Soso
Belly	Ruvos	Tteyai	Tteyal	Teyas	Tteyan	Vüro	Tteyat	Tyal	Tteyan	—
Foot	Kakai	Ku-a	Dapal	Saripa	Vantas	Tt-ango	Kura	Karao	Rapal	—

Comparative Vocabulary.—Continued.

	Ramno	Yamok	Modomok	Iran	Kaidan	Hampul	Damo	Damo	Renan	
Blood	Yava	Ama	Ama	Ama	Tama	Amnu	Kauma	Ava	Tama	—
Father	Rakei	Kina	Ina	Ina	Tena	Ennu	Kinna	Ina	Tena	—
Mother	Rakei	Anyai	Wara	Wawa	Uwa'a	Okku	Arre	Rakehal	Sones	—
Son	Murekoi	Ohayai	Utu	Vainai	Vananiak	Hahutsun	Arai	Mamarun	Riunani	Shichi
Man	Kunairin	Kakryan	Omos	Vavayan	Venuoa	Mamespinge	Vavayan	Mamayun	Turungan	Yanits
Woman	Rakei	Mazageran	Rarak	Kamangai	Uwa'a	Okku	Unu-uru	Rovarov	Sunis	—
Child	Taoki	(?)	Ayawan	Kokita-an	Syatvina	Purungosi	Mazageran	Huzumusav	Nakkeyan	—
Chief	Karan	Kajunangan	Rukal	Mananyaro	Vau	Hōsya or Nohen	Inaran	Rutol	Ranu	Nahmen
Village	Kayal	(?)	Rungēt	Kakarayan	Yakanen	Tsoroo	Karuvan	Vayao-kawas	Ran	—
Heaven	Heyal	I'pepo	Dai	Sra	Darak	Hire	Kadunangan	Rejik ddahhu	Wanan	—
Earth	Wage	Keras	Kadao	Tisral	Ware	Tsoroo	Adao	Rezahu	Vuran	—
Sun	Vuyatsin	Kadao	Vuran	Urāt	Voan	Porohu	Irass	Irass	Vuran	—
Moon	Mintoyan	Vitukan	Teol	Uwes	Mintokan	Tsongoha	Vituan	Vintol	Waturun	—
Star	Yurum	Karupus	Kutum	Tounm	Ruhon	Tsumtsum	Arupus	Ruron	Rānum	—
Cloud	Kwārahū	Muyal	Mandal	Ulas	Koranan	Vutsu	Udad	Udad	Uran	—
Rain	Vaihui	Ware	Vare	Heuhen	Heuhen	Porepe	Vare	Vare	Vare	—
Wind	Ponnyak	Sapoi	Apoi	Sapos	Sapos	Pufju	'apui	Hapoi	Ramah	—
Fire	Kusiya	Zayon	Nnai	Ran m	Ran m	Tsūmo	Zarum	Darum	Rarum	—
Winter	Regyalu	Gādn	Runan	Riv s	Riv s	Purongo	Gādo	Vinayu	Iravao	—
Mountain	Ririon	Pana	Inayan	Haul	Haul	Tsoroha	Panna	Rahon	Vokahal	—
River	Voahu	Vat	Vurras	Terras	Terras	Puresi	Vat	Iyezaraha	Vokas	—
Rice	Hoyel	Vatu	Soan	Atso	Atso	Avou	Vat	Wazzo	Wasu	—
Dog	Wokannohu	Vunuan	Gavol	Kannuwan	Kannuwan	Uwa	Vunuan	Ruhot	Apol	—
Ox	Kātsin	Agungun	Gun	Kurun	(?)	(?)	Roan	Noan	Waka	—
Monkey	Yungai	Putsawan	Ruton	Ruton	Hutton	Gohō	Karan	Rutōpo	Hogoton	—
Clothing	Rukos	Itom	Kepen	Reko	Hurus	Risi	Rikuro	Syato	Kurus	—
Cap	Kovovo	Tsarupun	Kavo.1	(?)	Tamohon	Tsoropopo	Tarupun	Kakosmos	Kūvō	—

The Formosan dialects have the words *tteyan*, *tteyat*, *tteyai*, *teyas* and *ttéyan*, meaning belly. The root of these seems to be *tte* or *te* which is not unlike the Korean *t'a* meaning womb.

Some years ago we called attention to the Dravidian word *or* or *ur*, meaning village, and the word *pillei*, meaning town or settlement, and showing that these two words formed the endings of the names of many of the original towns or settlements on the coast of Southern Korea. Now we find in the Formosan, as well, that in three of the dialects the word for village is *rual*, *ruktal* and *ramu*, in which *ru* or *ra* is the stem and forms a striking chain of evidence pointing toward the Southern origin of the original Korean language.

Among the Formosan words for earth are *darak*, *dal* and *rejik-ddahhu* in which it is evident that *da* or *dda* forms the stem. This latter, *dda*, is precisely the word for earth in Korean.

The Dravidian word for heaven is *van* and the Korean is *hanal*, the Koreans never using *v*. Now in the Formosan we find *ran* and *ranget* for heaven, but in one of the dialects we find *karuru-van* and in another *kakaru-yan*. It is reasonable to suppose that in these various cases the syllables *ran*, *van* and *yan* are the stem meaning heaven. It is true that the *van* and *yan* are the last syllable of the word and therefore, other things being equal, would not be the stem, but we find *ran* standing alone meaning heaven, and this leads us to believe that the *karuru-van* and *kakara-yan* are compound words of which the *van* and *yan* mean, radically, heaven and are closely allied to the *hanal* of Korean. The *van* of southern India, the *van* of Formosa and the *hanal* of Korea are perhaps more than mere coincidences.

The Formosan has, in one dialect, the word *teol* for star, which may or may not be related to the Korean *tal*, moon.

The Korean word for cloud is *kureum* and the cerebral *r* of the Korean makes this word almost the same as the Formosan *kutum*, which also means cloud.

In the word for wind we find a mimetic element

which suggests a mere coincidence between the Formosan *porepe* and the Korean *param*. The Korean word blow is *pu*, which is the sound which we make when we blow with the mouth. In fact our word blow probably has the same mimetic force. In Formosan the *pa* and *pu* of Korean are found to be *po*, *va*, *wa*, *vai* and *heu*. But of course nothing can be based upon similarities between mimetic words. It is beyond doubt that the Korean *ka*, dog, and the English *cur* came from the same ancient word *ku* which runs through—well, perhaps not quite half the languages of Asia, but at least through very many of them. At the same time such similarities as these alone would not argue a common origin for these languages, but simply that dogs bark the same way the world over.

In Formosan, fire is called *pujju*, *pounyak*, *sapui*, *sapoi*, *ha'apoi*, in which the persistent syllables *pu*, *po*, *pui* or *poi*, sometimes initial in the word and sometimes final, show a strong similarity to the Korean word for fire, which is *pul*.

There is no likeness between the words for dog in Formosan and Korean, but when a Korean calls his dog he invariably says *ware-ware*. It is just possible that this is the remnant of a word which might once have claimed relationship to the Formosan *wasu*, *wazzo*, *watso*, *vatu*, etc.

We find therefore that out of a vocabulary of fifty words there are fifteen in which a distinct similarity can be traced, and in not a few of the fifteen the similarity amounts to practical identity. In no case has violence been done to the laws which govern the whole family of languages to which both Korean and Formosan belong; and while we cannot hope to reach any absolute certainty in such a matter we would submit that a radical similarity, in thirty per cent of the Formosan words available, must be more than a mere coincidence.

APPENDIX III.

The Korean Physical Type.

We have received from a gentleman who is a recognized authority in the Far East on the subject of physical and physiognomical relationships, an objection to our theory of the southern, or at least Dravidian, origin of the Korean people. He bases his objection on the fact that the Dravidian people differ so widely from the Korean in physique, physiognomy and especially in the growth of hair. This argument, if established, would prove a very strong one. The question, however, is one of fact. Is it true that this wide difference exists? Since receiving this communication we have taken steps to discover the facts bearing upon this question, and we are free to confess that they do not seem to bear out the contention of our correspondent.

Now it is evident that we must look to the written statements of men long conversant with the Dravidian peoples in order to discover the facts in regard to their physical characteristics. A mere visitor to those regions would not be able to form correct conclusions, for he would not have opportunities of studying those peoples in all the details of their life nor to see enough of them numerically to draw conclusions. For this reason we turn to the words of men who have spent many years among the Dravidian peoples and who, if anybody, are competent to speak.

Mr. Hodgson, as quoted by Bishop Caldwell, says "A practiced eye will distinguish at a glance between the Aryan and Tamilian style of features and form. In the Aryan form there is height, symmetry, lightness and flexibility; in the Aryan face an oval contour with ample forehead and moderate jaws and mouth, a round chin, perpendicular with the forehead, a regular set of fine features, a well raised and unexpanded nose, with elliptical nares, a well sized and freely opened eye, running directly across the face; no want of eye-brows, eyelash, or beard; and lastly a clear brunette complexion, often

no darker than that of most southern Europeans. In the Tamilian (the typical Dravidian) on the contrary, there is less height, more dumpiness and flesh; in the Tamilian face, a somewhat lozenge contour caused by the large cheek bones; less perpendicularity in the features to the front, occasioned not so much by defect of forehead or chin as by excess of jaws and mouth; a larger proportion of face to head, and less roundness in the latter; a broader, flatter face, with features less symmetrical, but perhaps more expression, at least of individuality; shorter, wider nose, often clubbed at the end and furnished with round nostrils; eyes less and less fully opened, and less evenly crossing the face by their line of aperture; ears larger; lips thicker, *beard deficient*, color brunette as in the last but darker on the whole, and, as in it, various."

We are willing to submit this description of a Dravidian to anyone intimately, or even superficially, acquainted with the Korean and ask if it does not *exactly describe him even to the minutest feature*. Has he not less height and symmetry than the Aryan, which is practically the European? Has he not the lozenge contour of face, high cheek-bones, excess of jaw and mouth, too much face for his head, a broad flat face, short wide nose, round nostrils, eyes less fully open and less evenly crossing the face, ears large, lips thick and *beard deficient*? Nothing could more exactly describe the Korean.

"Look steadfastly" says Mr. Hodgson, "on any man of an aboriginal race (in Southern India) and say if a Mongol origin is not palpably inscribed on his face."

While agreeing completely with Mr. Hodgson as to the Scythian affinities of the Dravidians, Bishop Caldwell cannot speak so definitely, for he finds among the more cultivated of the Dravidians many similarities to the Aryans of Northern India; he believes however that these similarities have resulted from centuries of intermixture. But before quoting him let us take the evidence of Rev. Mr. Hislop on the Gond tribe, one of the less civilized of the Dravidian tribes and one in which there has been less admixture. He says: "The Gonds are a little below the

height of Europeans, and in complexion darker than the generality of Hindus, bodies well proportioned, but features rather ugly; a roundish head, distended nostrils, wide mouth, thickish lips, *straight black hair* and *scanty beard and mustaches*. Both hair and features are decidedly Mongolian."

Bishop Caldwell adds "An ascent from the Mongolian type to the Caucasian is not unknown; but conversely, it is not known, I believe, that there has been any descent from the Caucasian to the Mongolian. It would seem therefore that it only remains that we should suppose the original type of the whole Dravidian race to have been Mongolian, as that of the Gonds generally is up to the present time, and attribute the Caucasian type now universally apparent amongst the Dravidians of Southern India to the influence of culture, aided perhaps in some small degree by intermixture with Aryans."

It is evident from this that the authorities do not fully agree as to the prevalence of the Mongolian element in the physical characteristics of the Dravidian people as a whole. Some claim to see a distinct Mongolian type while others fail to see it. All agree that the wilder and less civilized tribes included in the Dravidian race are clearly Mongolian in type. As described above they agree in a remarkable manner with the Koreans of to-day. As to the more advanced Dravidian peoples some authorities see a Mongolian type and some do not but even those who do not see it believe that the difference between them and the more aboriginal types is due to a long period of cultivation and of intermixture with Aryan peoples. The question then arises whether or not the less civilized Dravidians are the typical Dravidians. As quoted above, a change would naturally be toward a Caucasian type rather than toward a Mongolian type, and other things being equal we always expect development to be upward rather than downward; so it seems fairly certain that such tribes as the Gond are the most typical Dravidians. To make this point more clear let us suppose that someone wishes to learn the habits and customs of the aborigines of America in order to compare

them with the wild tribes of northern Siberia. Would he go to western New York State where there are the remnants of Indian tribes engaged in peaceful agricultural pursuits, living in ordinary houses and dressing in ordinary European clothing? Would he not rather seek out those tribes which have been least in contact with the white man and are least removed from their aboriginal status? So it is that we say with confidence that if we are to find out whether the Korean and Dravidian physical types are alike we must not go to the Dravidian peoples who have been most affected by outside influences, but those who have remained the most secluded. Judging from such a standard as this we think it has been proved by the above quotations that, whether the Koreans came to Korea from the south, originally from India, or not, there is *nothing in the physical argument* that militates against the theory.

We have received from Rev. Alex Kenmure an interesting item in this connection. In London he met a Mr. Knowles who has been making a special study of the phonetic systems of India preparatory to the formation of an alphabet for the blind. The Korean alphabet and phonetic system were submitted to him to see whether his scheme for the blind would apply to Korean. His statement was, "This is Tamil through and through." So, though vocabularies may shift and change, phonetic systems and, still more, grammatical peculiarities remain. Practically the same thing was said by one of the missionaries in Korea who had worked six years among the Dravidian peoples. He said that when he first came to Korea the language sounded singularly familiar. He felt as if he ought to understand it without study.

APPENDIX IV.

Korea and Formosa.

The best authority we have on the Formosan tribes is James W. Davidson, F. R. G. S., whose monumental

work *The Island of Formosa, Past and Present* not only presents a large amount of new information but also brings together all important information that is available from other sources. It is, in fact, a cyclopaedia of Formosa. We propose, therefore, to take some of the information given by Mr. Davidson and see what light it will throw upon a possible connection between the early Koreans and the aborigines of that island. The numbers in parentheses indicate the pages in Mr. Davidson's work from which the quotations are taken.

The first fact which demands attention is that these wild tribes are many in number and are practically independent of each other. "From historical accounts of the Dutch, we learn that there were 293 tribes in the comparatively limited sphere of the foreigners' influence. From these and other writings we may safely infer that the tribes throughout the island were very numerous in early days" (562). Those tribes which have not been partly civilized "have retained their warlike and primitive nature" (563) and it must have been their independence of each other which fostered the warlike spirit. And yet in spite of their independence of each other the eight groups into which Mr. Davidson classifies them show such marked similarities on other than political lines that we must conclude that there is a strong racial bond between them. The comparative list of words in the first appendix of Mr. Davidson's book is one among many indications that the tribal differences were, after all, comparatively slight.

This minute subdivision into small tribes, many of which occupy but a single village, is a marked characteristic of these Formosan savages, and it corresponds with great exactitude with what we know of the southern Koreans two thousand years ago. They numbered perhaps a few hundred thousand in all, but were divided into seventy-six tribes, each having its central village and being, so far as we can learn, practically independent of each other. This is shown by the statement of the early writers that each of the tribes had its own little army. At times they doubtless formed temporary federations

for mutual benefit even as the Formosans have done, but as for any central government of a permanent nature they found no use for it. But in addition to this we find that the Formosan tribes may be classified into eight distinct groups which can be definitely named, such as the Atayal, Vonum, Taon, Paiwan, Ami, etc. These are not political divisions but are the result of racial characteristics. In Southern Korea the same thing obtained, for the seventy-six tribes were grouped under three names, namely Ma-han, Pyön-han and Chin-han. Whether these names were used by those ancient tribes we do not know but it is clearly recorded that the groups had racial characteristics that differentiated them from each other to some extent. The study of the names of these groups shows that the classification is correct. (See the *Korean Repository* Vol. II, p. 519). Taking it all together the resemblance between the political system of the early Koreans and that of the Formosans amounts to practical identity.

This argument would lose force if a similar state of things existed in northern Korea, but, as a fact, we find nothing of the kind there. The tribes of northern Korea were large and powerful. Each one occupied more territory than any fifty of the southern tribes. They were more like the North American Indian tribes. For instance, the Ye-mak or Nang-nang or Hyün-do or Eum-nu tribes of northern Korea each occupied a territory equal to a whole province of modern Korea, while the seventy-six tribes in the south occupied only two of the present provinces.

Mr. Davidson concludes that the natives of Formosa are of Malayan or Polynesian origin "their short stature, yellowish brown color, straight black hair and other physical characteristics, as well as their customs and language, bear sufficiently strong resemblance to the natives of the south seas to confirm this" (562). This is indefinite, as the Malayan and Polynesian types, are not identical but we may consider the question as fairly settled since almost all those who have had anything to do with these tribes agree on the point. The mat-

ter of physical characteristics is an important one and the few words which we here have descriptive of the Formosan could be literally applied to the Korean. The shortness of stature is not particularly noticeable in Korea today, though accurate measurements would doubtless show that the average stature of the Korean is considerable less than that of the European. To gain a true idea of the striking resemblance between the Korean and the Formosan one has only to examine the pictures of native Formosans in Mr. Davidson's finely illustrated work. Those who are well acquainted with the Koreans and have been in touch with them long enough to be able to distinguish their faces from those of the Chinese or Manchus would be the very first to note the striking resemblance between Formosan faces and the Korean. So far as the writer is concerned, he admits that, if these Formosans dressed the hair as the Koreans do, he would be wholly unable to detect any difference. Every one of the thirty-nine faces depicted on the page opposite page 563 is typically Korean. The same is true of the faces on the pages opposite 574, 578 and 588. In fact there is no native Formosan pictured in this book who might not be duplicated with ease on the streets of Seoul. The resemblance lies not merely in the shape of the features but in the general expression, a something hard to define, but so characteristic that it enabled the writer to detect instantly the nationality of two Koreans on the streets of New York even when dressed in European style.

An English member of the Chinese Customs staff once described to the writer a visit which he paid to the almost inaccessible haunts of one of these wild tribes, and he fully confirmed the fact which we had heard before that the women of Formosa are proportionately much superior to the men in looks. He affirmed that they were, on the whole, the handsomest lot of women he had ever seen. The same is true of the Korean island of Quelpart where the women are amazons and are the virtual rulers of the community. This state of things is now passing away since the Japanese have broken up the women's fishing industry there, but their phys-

ical superiority still remains and forms a strong point of resemblance between them and the Formosans. Another curious coincidence is found in the fact that in both Formosa and Quelpart a sort of raft is used the ends of the sticks being turned up in front. In Formosa this raft is made of bamboo and is called "The Bamboo Boat," while in Quelpart bamboo is never used, because unavailable, and yet the name "Bamboo Boat" survives. It is difficult to imagine how the Quelpart people came to use this name unless they brought it from abroad.

The next point is in regard to the structure of their houses. This is of course an important feature in the life of any people, but it cannot be relied on implicitly in comparative work, because dwellings are modified in accordance with climate and other circumstances. Comparisons along isothermal lines are naturally the most conclusive as regards dwellings, but when people migrate from north to south or *vice versa* it is natural to suppose the character of their dwellings will become modified to suit the changed conditions. At the same time, certain characteristics are almost sure to survive.

The Formosans of the west Atayal group "erect posts of wood and stone with walls of bamboo interlaced with a kind of rush or grass and thatched with the same material" but the west Atayals "dig a cellar-like excavation from three to six feet deep and with the earth thus obtained a wall is built around the mouth of the excavation, and the interior is paved with stone. Strong wooden pillars with cross-poles are erected and flat pieces of stone are used as roofing." This general plan is followed by many of the other groups. We are told by the ancient recorders that the primitive southern Koreans made houses much like this and that they entered by a *door in the roof*. The survival of this same form of dwelling to the present day in what is called the *um* indicates that the Koreans made use of the same semi-subterranean house that the uncivilized Formosans have preserved until the present time. There are other Formosan tribes whose houses are raised on posts, so that the floor is four or five feet above the ground. The exact

counterpart of this is seen in the little watch tower which the Koreans build in summer among their fields.

It would be of value to compare the dress of the Formosan with that of the early Koreans but as there is no information whatever on this latter point it will be useless to take up this question. But closely allied to this are the subjects of ornaments and tattooing. As for the former the natives of Formosa make little use of gold or silver for ornaments, but beads and shells are used. It is recorded of the ancient southern Koreans that they did not highly regard silver or gold but that they had beads strung about their faces. This ignorance of the value of gold is a very strong indication of a southern origin, for had these people come from the north it is impossible that they should have been ignorant, or even careless, of the value of gold at so late a date as 193 B.C. They learned it rapidly enough when they were once taught. Almost all the Formosan tribes tattoo to a greater or less extent. All accounts agree in saying that the early Koreans also tattooed. It was given up long ago but a trace still survives in the custom of drawing a red thread through the skin of the wrist in making certain kinds of compacts. The comparative severity of the Korean climate sufficiently accounts for the desuetude of this custom.

One very common custom among the Formosan tribes is the extraction of two teeth from the upper jaw. The number is always the same and it is always from the upper jaw that they are extracted. We know of no such custom in Korea at any time, but there is a curious coincidence. It is mentioned in the annals of the Kingdom of Silla, which at first was called Să-yu-băl, that any man who had sixteen teeth in his upper jaw was considered unusually wise and powerful. At one time the selection of a man to become king depended upon this thing, and a long search was required to find a man with sixteen teeth in his upper jaw. Now, we know that men ordinarily have that number. Why then should it have been difficult to find one who possessed the full set? I am inclined to think that it was due to some such cus-

tom, though it must be confessed that it was illogical for them to draw the teeth when their possession marked a man as exceptionally wise. I merely state the tradition as a coincidence without attempting to deduce any argument from it.

In all the Formosan tribes disease is attributed to the anger or malice of evil spirits. There are women exorcists who by various kinds of incantation pretend to drive out the offending spirit. Disease is sometimes caused by the wrath of a departed soul. The sorceress goes through her incantations, food is offered to the spirits, and a part of it is thrown out upon the ground. Every word of this applies precisely to Korea. The most ancient form of belief and the only indigenous one is the belief in these evil spirits, and the female exorcists and sorceresses correspond exactly to the Formosan. Of course the higher development of the Korean has made the forms of exorcism more elaborate, but at bottom the two are identical.

The burial customs of the Formosans are not highly distinctive. They bury their dead, as a rule, much after the ordinary fashion. In a few cases the house of the deceased is deserted after the event. One curious custom is that of calling out over the grave "He will not return." There is something very like this in the Korean custom of running before a funeral procession as it approaches the gate of the city, and crying *Chikeum kago önje ona*, "He goes now, but when shall he ever return?"

Those who are conversant with the Korean's religious notions will not fail to notice how closely the following Formosan beliefs and practices resemble the Korean. "After the rice or millet has been harvested the Atayals select a day, during the period of full moon, and worship their ancestors" (567). "The spirits of departed ancestors are worshipped on a day following the harvest. In some of the Vonum tribes a bundle of green grass is placed in a house as a symbol of the sacred day and it is believed that the family's ancestral spirits will congregate about this emblem" (569). Among the Tsou groups "a tree near the entrance to a village, usually selected be-

cause of its large size, receives special homage.*** It is thought that the spirits of their ancestors take their abode in these trees" (571). They "arrange certain articles such as dishes, food, etc., in a certain form, mumble over them certain incantations which the savages believe bring down the spirits of their ancestors who are present so long as the ceremony lasts. Should one violate the rule of this ceremony or offend by entering the charmed circle over which the priestess alone presides, the spirits will visit on the offender their ill-will" (573).

On the whole the resemblance between the Korean and Formosan is very marked and there is almost nothing that combats the theory of a common origin. On the contrary such origin is fairly well indicated.

APPENDIX V.

Dispersion of the Turanian Family.

The possible ethnic relationship between the Korean people and the Dravidians in India, indicated in the remarkable grammatical affinities between the two languages, raises the question as to the best working theory of the dispersion of the general family of which they are apparently members. Now that the attention of the world is being focused upon the Far East and its teeming races the question here proposed is sure to come to the fore sooner or later. Ethnologists have heretofore found room enough for labor and to spare in tracing the origin of the various European people. The Turanians who antedated the Aryan races will have their turn eventually.

A working theory is one which answers fairly well to the facts already known but must be held in the most tentative manner so that should new discoveries be made the theory may be modified to agree with these facts. The theory we have temporarily adopted is as follows. In the very earliest times while men were in a savage state, living on the products of the chase, a por-

tion of them succeeded in crossing the tremendous mountain barrier which separates China from the uplands of Persia. These wanderers descended into the plain of China and settled.

The next migration from the birthplace of the race was on a far grander scale. It was the Turanian race. At that time the human race probably had many of the characteristics which we call Mongolian. There was the high cheek bone, the depressed and flattened nose, the oblique eye, the thick lips and prominent mouth. The cranium was probably more or less brachycephalic, the skin somewhat dark, and the hair and eyes black. This race branched out in all directions. The pastoral age had commenced and the tendency was towards those points of the compass where pasture was to be found. To the east they were blocked by the lofty mountains and cruel plateaus and therefore they could not migrate with their flocks in that direction but swept north, south and west. They people Central Asia and Siberia. They probably covered Europe. They certainly filled the Indian peninsula. Here lies in all probability the cause of China's isolation, namely the intervention of the pastoral age between the first and second migrations. This is what makes it impossible to call the true Chinese "Mongolians." It is a question whether they even belong to the Turanian family. Their language surely shows no affinity for the Turanian. They have many of the same physical characteristics but these were doubtless common to the whole race at that time. I am fairly well convinced that it is as great a mistake to call the pure Chinese members of the "Mongolian" race as it would be to call Germans members of the Latin race.

Then came the rise of the mighty Aryan race which, with its mysteriously new physique, its superior skill and genius swept everything before it whichever direction it took. It drove the Turanian peoples in all directions. Entering India, perhaps 2,500 years before Christ, it drove out or subdued the former, Turanian, inhabitants. Some of these were absorbed, some fled to Burmah and further, some were crowded into the Deccan, some got

over to Madagascar and even the coast of Africa. Some crossed from Ceylon to the Malay peninsula and Sumatra. It was the mighty Aryan arm that caused the widest dispersion of the Turanian peoples. From the Malay peninsula as a new center they radiated in all directions; southward into Australia, eastward in to the islands of the Pacific, northward through the islands that skirt the coast of China, the Philippines, Formosa, the Liu Kiu Islands and finally the southern shores of Korea and Japan.

Meanwhile the northern branch of the same race was filling central and northern Asia, pressing eastward until they reached the Pacific and pouring over into Korea, so that the two members of the family having come by different routes faced each other at last across the Han River in Korea.

This theory makes no attempt to explain the presence of the strong Negrito element in the Islands of the Pacific. Whether this element was an earlier or a later one still remains to be determined but of the very wide dispersal of the Malay race there can be no question. It is paramount in the Philippines, in Formosa and in hundreds of the Pacific islands. Another step in the proof or the disproof of our theory will be a careful comparison of the Malay languages with that of Korea on the one side and the Dravidian dialects on the other.

So far as Korea is concerned the general argument showing that northern and southern Korea were peopled from diametrically different directions may be briefly stated. The earliest inhabitants of northern Korea were quite ignorant of the existence of settlers in the south. The kingdom founded in 1122 B. C. by the Chinese refugee Kija had its capital at Pyeng-yang but it never extended south beyond the Han River. Not until after the fall of that dynasty in 193 B. C. and the flight southward of the last king do we hear anything of the southern people. The earlier traditions of Korea are utterly silent as to them,

In the south this Kijun, the last of his house, found a people so new, so strange, so utterly different in every

way from those of the north that history has preserved the causes of his astonishment. If these people had not been very different from those to which the north had been accustomed we should have had no such minute description. We are told far more about them than we are able to learn about the northern people who had a much higher civilization.

We are told that they set little or no value on gold. If there had been any intercourse with the north they must have acquired a knowledge of the value of this metal.

Their use of beads differentiated them from the people of the north. Also the habit of tattooing the body. These are southern forms of ornamentation, not northern. There is a certain amount of tattooing among far northern tribes but nothing compared with that among the people of the tropics where clothing has to be dispensed with. Tattooing has died out in Korea, the only vestige of it being the habit of drawing a silk thread, dipped in red dye, under the skin of the wrist in making certain kinds of pledges. The form of government in southern Korea was another cause for surprise. There was no centralization, but isolated communities, each a political integer; and most remarkable of all, an utter absence of fenced or walled towns.

There were in all seventy-six little communities scattered thickly along the southern coast terminating with the points where the northern boundaries of Chul-la and Kung-sang Provinces lie to-day. There were three congeries of settlements called respectively Mahan, Pyŏnhan and Chinhan. These names were probably later ones but they marked a certain general fact, namely that there were three kinds of people each of which had certain characteristics peculiar to itself. There are certain sets of names which occur exclusively in certain ones of these three sets and not in others.

In Mahan, for instance, there are eight names that end in *pi-ri* or *pi-li*, *r* and *l* being one and the same letter in Korean. These eight names are Li-li, Na-pi-li, Chun-pi-li, Mo-ro-pi-li, Pyuk-pi-li, Yu-ra-pi-li, Kamha-pi-li and Cho-san-do-pi-li. We need only to glance at the map of

southern India to see how this ending is matched in the Dravidian names Trichinapalli, Alapalli, Shivilperri, Sarwapalli, Saimpalli, Tinneveli, and hundreds of others. .

Another common ending for names of settlements in southern Korea was *ro*. This may be the same as the Dravidian *ur* meaning town and found in numberless villages and towns of southern India as, for instance, Trich-ur, Sat-ur, Tan-ur, Tripat-ur, Tanj-ur, Aut-ur, Har-ur, Pam-ur, Bell-ur, Bengal-ur, Gudal-ur, Kar-ur,—Nellore, My-sore, Cuddalore etc., etc. The transposition of the letters whereby *ur* becomes *ro* is by no means an uncommon phenomenon in the transformation of language.

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